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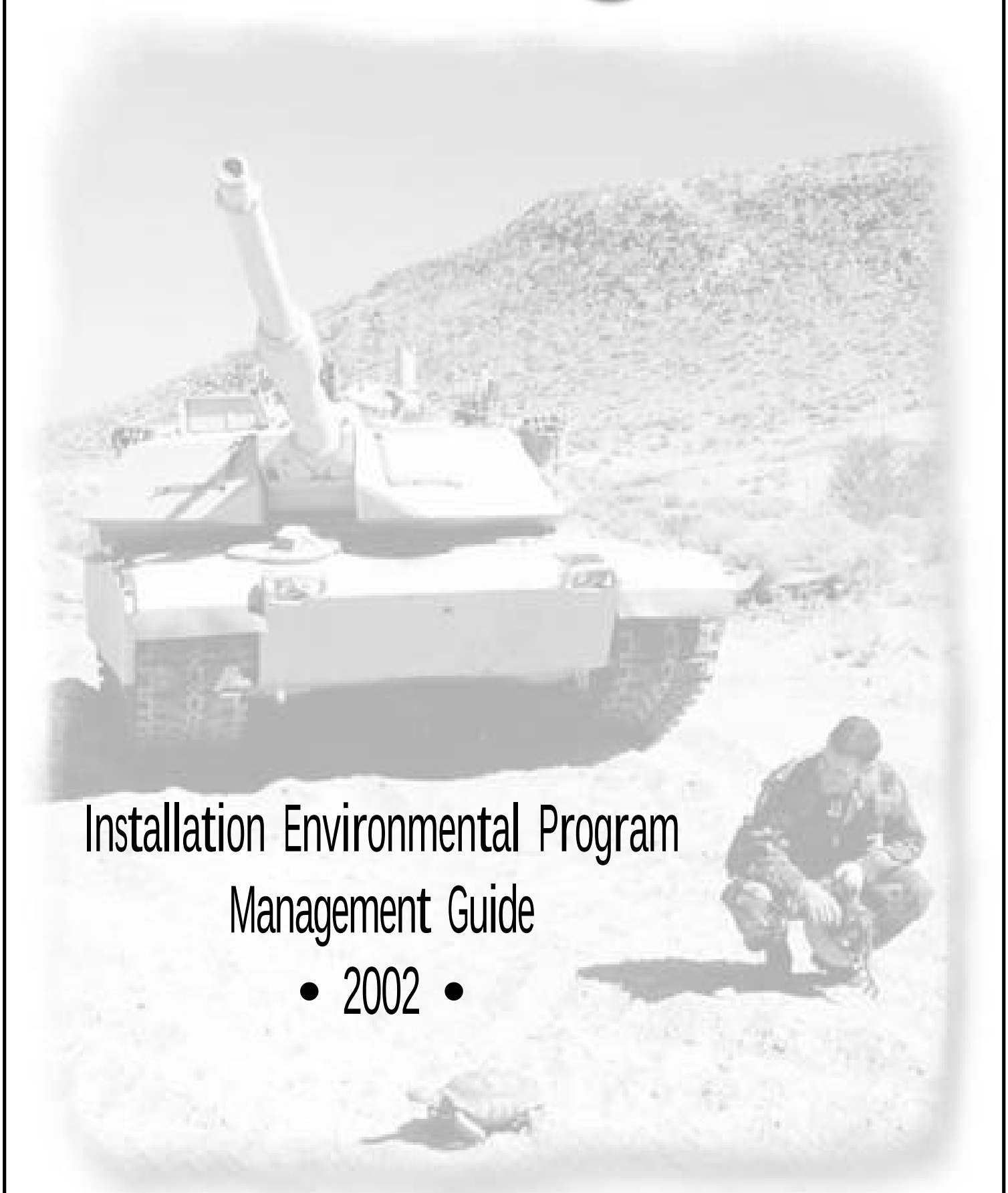
http://aec.army.mil/



Installation Environmental Program Management Guide

• 2002 •

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14. ABSTRACT
The "Installation Environmental Program Management Guide", formerly the "Commander's Guide to Environmental Management", is a primer on environmental program management for Army installations and facilities, containing basic environmental information for Commanders, staff officers and both environmental and non-environmental personnel.

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INSTALLATION ENVIRONMENTAL PROGRAM MANAGEMENT GUIDE

INTRODUCTION

People, resources, communication and organization united by the Army's tradition of leadership are the bedrock of Army environmental management. Whether we are in a line unit on the "Frontier of Freedom," produce equipment for front line soldiers, or maintain facilities and land, our mission impacts the environment and the environment impacts our mission.

Including both land and facilities, the Army manages more than 14 million acres that may be scrutinized by the public, regulators, Congress or the courts. We need that land to conduct training and other mission activities. In addition, we have the very practical need to maintain our environmental resources in a manner that both supports our mission and provides a high quality of life for our soldiers, their families and others that live on, work on, or visit Army facilities. The Army also has legal requirements to conserve, protect and restore natural and cultural resources while accomplishing its military mission. By integrating proper environmental management into our mission, not only do we comply with federal, state, local and host nation regulations, we aslo enhance our mission through maintaining operations and realistic training conditions.

The Army's strategy to accomplish its environmental vision — *To integrate environmental values into the Army mission in order to sustain readiness, improve the soldier's quality of life, strengthen community relationships and provide sound stewardship of resources* — is deeply rooted in our shared national values. As we face the challenges of sustaining the Legacy Force, establishing the Interim Force, and creating the Objective Force, during this time of transformation, it is essential that our environmental management program advance in step supporting and protecting the soldiers and missions of the new millennium.

POLICY

THE ARMY'S ENVIRONMENTAL MANAGEMENT POLICY

- Reduce or eliminate pollution at the source.
- Conserve and protect natural and cultural resources.
- Integrate environmental consideration into all activities.
- Conduct installation operations that are environmentally acceptable and enhance soldiers' and civilians' quality of life.
- Comply with all applicable environmental laws.
- Continue to restore previously contaminated sites.
- Allocate resources and training to protect our environment.

Based on Army Regulation 200-1 (21 February 1997), the Department of the Army Environmental Management Policy Memorandum dated 17 July 1990 (reiterated 5 December 1995) and Installation Management Action Plan (IMAP) (updated August 2000).

THE ARMY'S OCONUS ENVIRONMENTAL POLICY AND STRATEGY

Army components in foreign areas should establish strong positive working relationships with their host nation (HN) counterparts and agencies, and cooperate with HN authorities regarding any legitimate requests for information about unclassified activities that affect environmental quality. Environmental issues identified by the HN that have generated significant local, international or potential Congressional visibility should be identified to HQDA (ATTN: OACSIM/ODEP) as soon as possible.

The environmental requirements for Army installations outside the continental United States (OCONUS), with the exception of those located within the United States but outside it's continental boundaries, are a composite of host nation and U.S. criteria and standards. These OCONUS requirements provide a consistent strategy for environmental compliance overseas that carefully balances ensuring mission capability and readiness, with both sensitivity and adherence to host nation environmental regulations and awareness.

The Army's strategy for environmental compliance and management in foreign nations is based primarily on policy and guidance prescribed by DoD Instruction 4715.5, "Management of Environmental Compliance at Overseas Installations." Army components in foreign areas are responsible for compliance with the country specific Final Governing Standards (FGS) in which they are located. Compliance with FGS means that permanent base operation facilities meet the environmental standards and criteria established in the FGS. However, any environmental standard specifically defined and required by Status of Forces Agreements (SOFAs), supplementary agreements to a SOFA, Executive Orders, international treaties, or other bilateral and multilateral agreements take precedence over the FGS and shall be referred to when determining priority for establishing compliance. OCONUS facilities shall plan, program and budget for compliance with FGS via the Environmental Program Requirements (EPR) reporting process, in accordance with applicable Army planning and programming guidance documents.

Remediation of environmental contamination on Army facilities or installations in foreign areas shall be in accordance with the provisions of DoD I 4715.8, "Environmental Remediation for DoD Activities Overseas." In determining whether an imminent or substantial endangerment to human health and safety exists, the facility and its MACOM shall consult with the designated DoD "executive agent for remediation" in the country in where the site is located. MACOM environmental offices overseas are to establish a remediation policy and program in consonance with DoDI 4715.8. Funding for cleanup and remediation efforts overseas shall be in accordance with Army and DoD policy, there are no separate funds allocated for cleanup overseas. Programming funds for remediation activities in foreign areas/OCONUS shall be in accordance with Army policy and DoDI 4715.8.

THE ARMY'S BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL RESTORATION POLICY

An installation's responsibility to protect human health and the environment does not end if it is slated to close. In fact, such a status involves additional restoration requirements. These are discussed

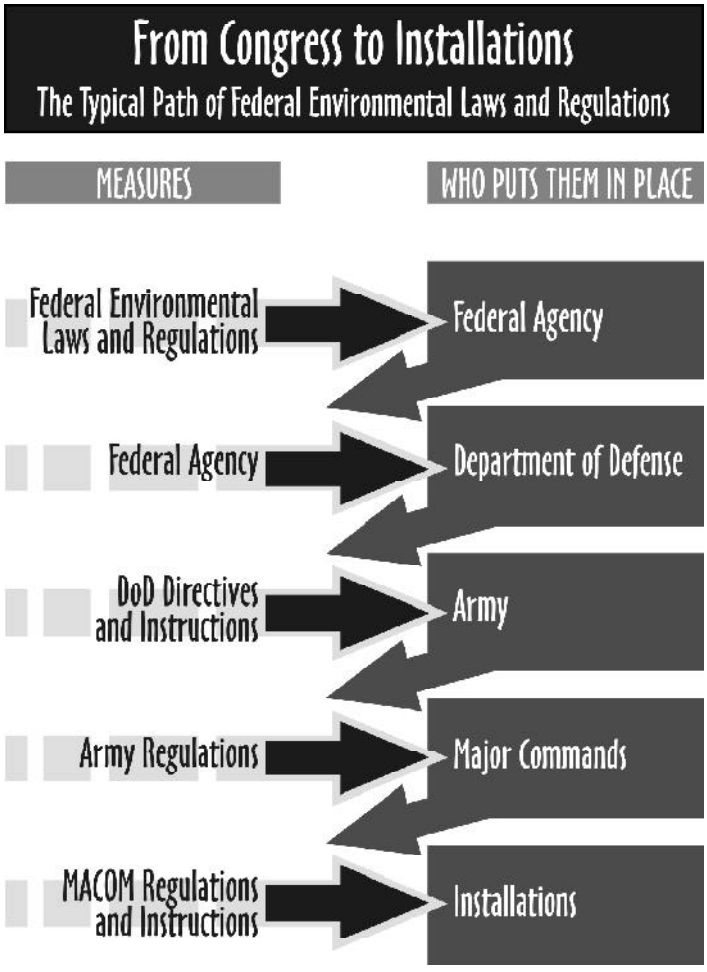
in Part II - Base Realignment and Closure Environmental Restoration Program. References to the policy underlying these procedures can be found there.

PLANNING

LEGISLATIVE AND REGULATORY OVERVIEW

Installations are responsible, through their commanders, for ensuring that current environmental requirements are being met and that resource requirements are planned to enable the installation to meet future requirements, including those yet to be identified. Planning and programming for future requirements is critical to helping maintain readiness. Because environmental requirements affect virtually every installation operation, commanders are also responsible for making sure that environmental impacts are considered in the decision-making process.

Requirements for environmental compliance can be expected to increase in complexity, and emerging environmental protection issues can be expected to add future requirements. The federal government already must comply with more than 40 environmental statutes and amendments, 34 of which have been passed by Congress within the past 25 years. In addition, compliance with international treaties, Presidential Executive Orders, and state statues and amendments must be appropriately adhered to by installations.



Federal Laws

Most federal environmental regulations are promulgated in response to legislation passed by Congress. Principal environmental legislation affecting Army activities include:

CLEAN AIR ACT (CAA) provides requirements to prevent or control (criteria) air pollution from stationary and mobile sources; includes provisions for control of air toxins, acid rain, chlorofluorocarbons (CFCs) and halons; provides for a national air quality permit program and increased enforcement (civil and criminal).

FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT (FIFRA) requires the licensing or registration of pesticide products; requires proper management of pesticide use, storage and disposal, including applicator certification.

SAFE DRINKING WATER ACT (SDWA) regulates drinking water quality for pollutants that may harm human health or negatively affect the aesthetic quality of drinking water.

ENDANGERED SPECIES ACT (ESA) requires that actions of federal agencies do not jeopardize the existence of threatened or endangered species or harm critical habitats of these species. It also prohibits the unpermitted "take" of such species.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) (1969) National Environmental Policy Act of 1969 (NEPA) was established to ensure decision makers take into consideration potential significant impacts from federal proposals prior to approving action. Also established the President's Council on Environmental Quality.

NATIONAL HISTORIC PRESERVATION ACT (NHPA) requires federal agencies to consider effects of their actions (such as construction, leasing or land transactions) on historic properties. Section 110 of the NHPA requires federal agencies to develop a program to locate, identify and evaluate historic properties on federal lands, and to nominate these sites for listing in the National Register of Historic Places. The Advisory Council on Historic Preservation published revised regulations in FY99. These revised regulations, 36 CFR Part 800: Protection of Historic Properties, define the procedures for how to meet the statutory responsibilities of NHPA, through what is called the Section 106 process.

ARCHEOLOGICAL RESOURCES PROTECTION ACT (ARPA) requires a permit for anyone investigating archeological resources on federal lands. Installation law enforcement personnel should be aware of archeological resources that need protection, and such sites should be monitored regularly.

NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT (NAGPRA) requires that federal agencies summarize and inventory any collection that may contain Native American cultural items and human remains. NAGPRA also requires information to be distributed to culturally affiliated, federally recognized Native American tribes, Alaska Native villages or Native Hawaiian organizations; expeditious response to requests for return of NAGPRA materials from such groups; and consultation with these groups prior to excavation of human remains or cultural items. Discovery of human remains or cultural items calls for stopping the activity in the discovery area for 30 days, notifying, and consulting with the affiliated Native American group.

AMERICAN INDIAN RELIGIOUS FREEDOM ACT (AIRFA) established a policy of protecting Native American religious practices and grants access to sacred sites on Army lands, subject to reasonable safety restrictions.

SIKES ACT requires military services to manage natural resources on their lands; requires the military services to carry out a natural resources conservation program, prepare and implement an Integrated Natural Resources Management Plan that is coordinated with the U.S. Fish and Wildlife Service and state wildlife agencies; and provide for public access to resources. It also authorizes cooperative agreements for natural resources management.

CLEAN WATER ACT (CWA) regulates discharge of wastewater from any point source including industrial facilities and sewage treatment facilities to waters of the United States; requires reporting and cleanup of oil and hazardous substance spills in waterways; also protects waterways.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA), also known as the Superfund law, guides the cleanup of hazardous substances, pollutants and contaminants. It also makes persons (including businesses and federal facilities) responsible for hazardous substance releases liable for cleanup of those releases, including restoration of injured natural resources and restitution costs. Amended by the Superfund Amendments Reauthorization Act (SARA), the Emergency Planning and Community Right-to-Know Act (EPCRA) is part of SARA Title III.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) establishes guidelines and standards for hazardous waste generation, transportation, treatment, storage and disposal.

TOXIC SUBSTANCES CONTROL ACT (TSCA) regulates, among other substances, polychlorinated biphenyls (PCBs), chlorofluorocarbons (CFCs) and asbestos. TSCA also requires testing of chemical substances entering the environment, regulating releases where necessary.

NOISE CONTROL ACT establishes a national policy to promote an environment free from noise that jeopardizes health and welfare and regulates noise emissions from commercial products such as transportation and construction equipment.

POLLUTION PREVENTION ACT (1990) focused on reducing the amount of pollution through cost-effective changes in production, operation and raw materials use, conservation and efficient use of natural resources, recycling and source reduction. Amplified in part by EO 13101.

Executive Orders and Directives

EXECUTIVE ORDER 11990, Protection of Wetlands, encourages installation commanders to provide leadership and act to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. According to the order, installation commanders shall strive to achieve no net loss of values and functions of installation wetlands.

EXECUTIVE ORDER 12088, Federal Compliance with Pollution Control Standards, is the critical link between federal environmental regulations and federal facilities. The order mandates that federal facilities control and monitor pollution according to federal regulations. It also established the A-106 reporting process (now known in the Army as the Environmental Program Requirements [EPR] report). The EPA document Federal Facilities Compliance Strategy, also known as the EPA Yellow Book, establishes a comprehensive and proactive approach for federal facilities' compliance with these federal regulations. This order has specific applicability outside the United States.

EXECUTIVE ORDER 12114, Environmental Effects Abroad of Major Federal Actions, addresses the environmental effects of major federal actions abroad. The order establishes internal procedures for federal agencies to consider the significant effects of their actions on the environment outside the United States. The State Department coordinates all interaction between federal agencies and foreign governments. This program aims to provide information to decision makers, increase awareness and interest in environmental concerns and encourage environmental cooperation with foreign nations.

EXECUTIVE ORDER 12580, Superfund Implementation, delegates the authorities vested in the President under CERCLA to the Secretary of Defense, and further sub delegates those authorities to the Secretary of the Army. This EO empowers the Army to be the lead response agency at those CERCLA sites under its jurisdiction, custory or control.

EXECUTIVE ORDER 12856, Federal Compliance with Right-To-Know Laws and Pollution Prevention Requirements, is designed to help installation commanders and other federal facility managers understand and reduce hazardous materials use at their installations. The order requires that federal facilities comply with the reporting requirements of the Emergency Planning and Community Right-To-Know Act, prepare written Pollution Prevention Plans, reduce toxic chemical releases by 50 percent between 1994 and 1999, and identify and eliminate hazardous material requirements in technical documentation. The order also required federal agencies to develop pollution prevention strategies by the end of 1995.

EXECUTIVE ORDER 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, dated February 11, 1994, instructs each federal agency to make achieving environmental justice part of its mission.

EXECUTIVE ORDER 12962, Recreational Fisheries, requires federal agencies to work cooperatively with states and tribes to improve the quantity and sustainable productivity of U.S. aquatic resources for increased recreational fishing opportunities by fostering conservation activities, allowing access to fishery resources, and minimizing the effects of federal programs on recreational fisheries.

EXECUTIVE ORDER 13007, Indian Sacred Sites, requires installation commanders, to the extent practicable, to accommodate access to sacred sites by Indian groups, and to avoid adversely affecting the physical integrity of such sites.

EXECUTIVE ORDER 13149, Greening The Government Through Federal Fleet And Transportation Efficiency (replaced EO 13031 April 2000), instructs commanders to exercise leadership in the reduction of petroleum consumption through improvements in (non-tactical) fleet fuel efficiency and the use of alternative fuel vehicles and alternative fuels.

EXECUTIVE ORDER 13084, Consultation with Indian Tribal Governments, provides that in formulating policies affecting Indian tribal governments, commanders shall be guided by principles of respect for Indian tribal self-government and sovereignty for tribal treaty and other rights and for responsibilities that arise from the unique legal relationship between the federal government and Indian tribal governments, and shall have an effective process permitting elected officials and other tribal government representatives to provide meaningful and timely input in the development of policies on matters that affect their communities.

EXECUTIVE ORDER 13101, Greening the Government through Waste Prevention, Recycling and Federal Acquisition, requires federal facilities to have a recycling program and to comply with the RCRA affirmative procurement requirements.

EXECUTIVE ORDER 13112, Invasive Species, establishes federal agency responsibilities for the identification and management of invasive species. The order is designed to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological and human health impacts that invasive species cause.

EXECUTIVE ORDER 13123, Greening the Government through Efficient Energy Management, requires federal facilities to reduce greenhouse gas emissions from energy use and to reduce energy consumption overall.

EXECUTIVE ORDER 13148, Greening the Government through Environmental Management (April 2000), makes heads of federal agencies responsible for ensuring integration of environmental accountability into day-to-day decision making and long-term planning processes, across all missions, activities and functions.

EXECUTIVE ORDER 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, directs federal agencies that have an impact on migratory bird populations to implement the policies of the Migratory Bird Treaty Act by developing and implementing memorandums of understanding with the Fish and Wildlife Service to protect migratory bird populations by conserving habitat and implementing other plans and actions designed to promote the conservation and recovery of migratory birds.

PRESIDENTIAL MEMORANDUM dated 29 April 1994, Government-to-Government Relations with Native American Tribal Governments, directs heads of executive departments and agencies to operate within a government-to-government relationship with federally recognized tribal governments and to consult with tribal governments, to the greatest extent practicable, before taking actions that affect federally recognized tribal governments. This involves treating tribal representatives as agents of a sovereign entity, rather than as members of the interested public, and may require that agencies actively seek out tribal comment on actions that may affect the tribes, instead of relying on the standard public notice process.

State Regulations

Each state has its own regulatory organization charged with developing and implementing environmental regulations. Where federal sovereign immunity has been waived, state laws and their implementing regulations may apply to federal installations. When the EPA approves a state's program, the state has "primacy" for that particular program. Under the authority of many federal environmental statutes (for example, CWA, RCRA, and CAA), state and local regulators take the lead in promulgating environmental regulations and in enforcing environmental requirements.

Many state regulations parallel federal environmental regulations; some are more stringent. This Guide is not large enough to summarize all state regulations. It is a command responsibility to ensure that the installation's environmental staff stays abreast of, and in compliance with, federal, state, and any applicable local or host-nation regulations. Contact the installation's Army Regional Environmental Office for assistance.

Army Environmental Regulations

The Army has developed environmental regulations that prescribe policies, responses and procedures to promote stewardship, protect military readiness and enhance quality of life. These are in the 200's series, and AR 350-4, although some supporting ARs remain in the 420 series, especially

AR 420-40, -49 and -76. Although many of these regulations are similar to EPA regulations, several requirements are more stringent than those of the EPA.

AR 200-1, Environmental Protection and Enhancement, provides policy for:

- Water Resources
- Oil and Hazardous Substances Spills
- Hazardous Materials Management
- Hazardous and Solid Waste Management
- Air Programs
- Environmental Noise Management Programs
- Asbestos Management
- Radon Reduction Program
- Pollution Prevention
- Environmental Restoration Programs
- Environmental Quality Technology Program
- Automated Environmental Management Systems
- Army Environmental Program in Foreign Countries.

It addresses other environmental programs, including:

- National Environmental Policy Act (NEPA) Requirements
- Natural Resources Management
- Cultural Resources Management
- Natural Resource Damage Assessment (NRDA)
- Real Property Acquisition, Outgrant and Disposal Transactions
- Environmental Agreements
- Environmental Compliance Assessments
- The Consolidated Army Military Awards Program
- Environmental Quality Control Committee (EQCC)
- Army Environmental Training Program
- Installation/State Environmental Training Plans
- National Security Emergencies and Exemptions
- Pest Management Program.

AR 200-1 also states a commander's general environmental responsibilities, which include

- Establishing a structure to plan and execute environmental programs
- Integrating environmental and cultural protection into the execution of the command's basic mission
- Cooperating with regulators to maintain environmental compliance
- Providing regulators access to facilities to monitor compliance

- Reporting indications of environmental crises immediately through the command channels to the Office of the Director of Environmental Programs
- Conducting a public affairs program to support the Army's environmental program.

AR 200-2, Environmental Effects of Army Actions, sets forth policy, responsibilities and procedures for integrating environmental considerations into Army planning and decision making in accordance with the requirements of the National Environmental Policy Act (NEPA). It lists the types of actions or projects that must be evaluated for their potential environmental impacts and the criteria for determining which type of environmental documentation is appropriate.

AR 200-3, Natural Resources - Land, Forest and Wildlife Management, sets forth policy and guidance for the planning, management, maintenance and mission support of all lands under Army control. This includes the soils, vegetation, fish, wildlife, endangered species and forests which are used for mission, recreation, timber production, agricultural leasing and other purposes which are in the Army's or the public's interest.

AR 200-4, Cultural Resources Management, prescribes Army policy on cultural resources management and gives guidance for the treatment of historic properties, including any significant prehistoric or historic district, site, building, structure or object on Army-controlled property. It also defines requirements for development of an Integrated Cultural Resource Management Plan (ICRMP) that details installation procedures for integrating cultural resources management with mission requirements.

AR 200-5, Pest Management, provides DA Pest Management Program policies to meet legal compliance requirements in implementing Department of Defense Instruction 4150.7, comply with national policies and support the military mission. AR 200-5 supersedes AR 420-76 and reflects the transfer of responsibilities previously assigned to the Office of the Chief of Engineers to Headquarters (HQ) DA, Assistant Chief of Staff for Installation Management. AR 200-5 also establishes new policy and procedures for Installation Pest Management Programs and reflects program emphasis for the protection of the environment through Integrated Pest Management.

AR 350-4, Integrated Training Area Management (ITAM), sets forth the objectives, responsibilities and policies for the ITAM program. ITAM establishes procedures to achieve optimum, sustainable use of training lands by implementing a uniform land management program and includes inventorying and monitoring land condition, integrating training requirements with land carrying capacity, educating land users to minimize adverse impacts, and providing for training land rehabilitation and maintenance.

Legal Liability

Improper environmental management carries potential civil and criminal penalties. Because commanders are ultimately responsible for compliance, they should familiarize themselves with the laws. Various federal environmental statutes provide civil and criminal penalties for violations, including

- Hazardous Materials Transportation Act
- Occupational Safety and Health Act
- Clean Air Act
- Toxic Substances Control Act
- Resource Conservation and Recovery Act

- Safe Drinking Water Act
- Comprehensive Environmental Response, Compensation, and Liability Act
- Superfund Amendments and Reauthorization Act
- Endangered Species Act
- Clean Water Act
- Archeological Resources Protection Act
- Native American Graves Protection and Repatriation Act.

The maximum penalties vary by statute but include fines ranging from $10,000 to $25,000 per day of violation and imprisonment from one year to 15 years. Under some circumstances, installations and personnel can be subject to enforcement actions, or civil lawsuits, in the court system for violation of environmental laws. A civil enforcement action may also be possible; a civil enforcement action could affect both the installation's public image and its budget.

A commander's direct participation in the violation of an environmental statute is but one theory of liability that could subject that officer to prosecution in a federal or state court. By not acting promptly to correct an environmental violation, a commander may also be subject to prosecution even though he or she has no direct involvement in the violation. If violations of the law do occur, an installation should inform the appropriate regulatory authorities immediately and engage in good faith efforts at all command levels to come into compliance. Failure to comply with the law may also subject installation activities, including training, to delay or stoppage through injunction.

Consult with your command or staff judge advocate for more information on potential criminal conduct and liabilities.

MAJOR ENVIRONMENTAL PROGRAM ELEMENTS

A sound Army facility environmental program should contain five main elements: Foundation, Conservation, Compliance, Pollution Prevention and Restoration.

Foundation

An installation's environmental program must be based on a strong, adequate staff. Unless the environmental staff possesses or can access the necessary expertise, it will be difficult, if not impossible, to manage the wide spectrum of environmental issues the installation will encounter. Foundation activities include integrated programs such as structured consideration of possible environmental impacts of operations and activities from planning through execution, real property transactions, resourcing the environmental program and environmental reporting. Talk with the Environmental Coordinator, or look at the "Checking and Corrective Action" section of Part I and the "Integrated Programs" section in Part II of this Guide for more information on Foundation programs..

Conservation

Focus is needed on the long-term sustainable use, ecological management, conservation and restoration of the land and renewable natural resources such as vegetation, habitat, fish and wildlife, endangered species and wetlands. This also addresses historic, archeological and other cultural

resources. Attention to this arena can help insure that our limited training lands remain available for future use.

Compliance

An installation's operations should meet federal, state, local and applicable host-nation environmental requirements. These requirements include laws and regulations on a wide range of activities, including wastewater discharge, noise abatement, air quality, hazardous materials and waste management, and drinking water.

Pollution Prevention

It is far better to prevent pollution before it is generated than to control it at "the end of the pipe," or to clean up a contaminated environment. It is also more cost-effective to prevent pollution, decreasing the drain on the Army's limited base-opts resources.

Restoration

Environmental Restoration focuses on cleaning up contamination caused by past waste disposal practices. Restoration includes the Installation Restoration Program (IRP), the Formerly Used Defense Sites (FUDS) and the Base Realignment and Closure (BRAC) programs. IRP remediates hazardous waste at active Army installations. The FUDS program remediates waste at formerly used defense sites. The BRAC program remediates hazardous waste at closing installations.

The Defense Environmental Restoration Program (DERP), established in 1984, is a comprehensive program that identifies and cleans up hazardous waste sites at DoD installations and formerly used defense properties. The Installation Restoration Program (IRP), the major element of DERP, is DoD's program for meeting its responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), the Superfund Amendments and Reauthorization Act of 1986 (SARA) and Executive Order 12580.

IRP is funded by an Army transfer account known as Environmental Restoration, Army (ER,A). The IRP process includes the preliminary assessment (PA), site inspection (SI), remedial investigation and feasibility study (RI/FS), and remedial design and remedial action (RD/RA). It differs from the environmental compliance program in that IRP focuses on cleanup of contamination associated with past Army activities (generally before 1986).

Further information on IRP and BRAC are in Part II-Installation Restoration Program and Base Closure Program.

SOURCES OF ASSISTANCE

Aside from Army contacts, other federal and state and local agency sources of information may also be helpful.

AAPPSO – Army Acquisition Pollution Prevention Support Office

ALMAC – U.S. Army Logistics Management College

CEIHOT – Center for Environmental Initiatives and Hands-On Training

CERL – U.S. Army Construction Engineering Research Laboratory

CRREL – U.S. Army Cold Regions Research Engineering Laboratory

DCSOPS – Deputy Chief of Staff for Operations and Plans

DoD – Department of Defense

ODEP – Office of the Director of Environmental Programs

PDSC – Professional Development Support Center (Army Corps of Engineers)

USACE – U.S. Army Corps of Engineers

USACHPPM – U.S. Army Center for Health Promotion and Preventive Medicine

USAEC – U.S. Army Environmental Center

USATCES – U.S. Army Technical Center for Explosives Safety

WES – U.S. Army Waterways Experiment Station

General Technical Contact:

The Army Environmental Response Line
CONUS (800) USA-EVHL
(800-872-3845)
OCONUS (410) 436-1699
DSN 584-1699

Specific Technical Contacts:

Air Pollution Management

USACHPPM Air Pollution Management Program
(410) 436-3500
DSN 584-3500

Ambient Air Quality Management Program
(410) 436-3500/2509
DSN 584-3500/2509

USAEC
(410) 436-4714
DSN 584-4714

Asbestos

EPA Asbestos Hotline
(800) 368-5888

DSN 656-5979
USAEC (410) 436-7076
DSN 584-7076

CFCS and Halons

AAPPSO
(703) 617-9488
DSN 284-9488

USACHPPM Air Pollution Management Program
(410) 436-3500
DSN 584-3500

USAEC
(410) 436-4714
DSN 584-4714

USACPW Mechanical and Energy Division
(703) 806-6071
DSN 656-6071

Cultural Resources

ODEP Conservation Team
(703) 693-0677
DSN 223-0677

USAEC
(410) 436-3206
DSN 584-3206

Data Management
USAEC (410) 436-1650
DSN 584-1650

Emergency Planning and Community Right-To-Know
USACPW Sanitary and Chemical Division
(703) 806-5196
DSN 656-5196

USAEC (410) 436-4714
DSN 584-4714

Endangered and Threatened Species
USAEC
(410) 436-3206
DSN 584-3206

Environmental Compliance Assessment System (ECAS)
USAEC
(410) 436-4714
DSN 584-4714

Environmental Noise
USACHPPM Environmental Noise Program
(410) 436-3829
DSN 584-3829

USAEC
(410) 436-3206
DSN 584-3206

Environmental Restoration Program
USAEC
(410) 436-3461
DSN 584-3461

Explosives Safety (Remediation)
USATCES
(815) 273-8741/8784/8876
DSN 585-8741/8784/8876

Groundwater
USACHPPM Groundwater and Solid Waste Program
(410) 436-2024
DSN 584-2024

USACE Environmental Support Branch
(202) 761-8801
DSN 763-8801

Hazardous and Toxic Waste Management
USAEC
(410) 436-4714
DSN 584-4714

USACPW Sanitary and Chemical Division
(703) 806-5196
DSN 656-5196

EPA RCRA/EPCRA/Superfund Hotline
(800) 424-9346

USACHPPM Hazardous and Medical Waste Management Program
(410) 436-3651
DSN 584-3651

EPA TSCA Hotline
(202) 554-1404

Historic Preservation
USAEC
(410) 436-3206
DSN 584-3206

Integrated Training Area Management
DCSOPS Training Directorate
(703) 614-4990
DSN 224-4990

USAEC
(410) 436-1536
DSN 584-1536

Legislative and Regulatory Matters
Environmental Legislative Regulatory and Monitoring Program (EL/RAMP)
Federal Regulatory and Legislative
USAEC
(410) 436-2434
DSN 584-2434

Federal Legislative, International Treaties
Army Environmental Policy Institute
(404) 880-6713
DSN 367-4243

State Legislative & Regulatory
USAEC Regional Offices
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DSN 584-1280

National Environmental Policy Act (NEPA)
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USAEC
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DSN 584-3206

Natural Resources
USAEC
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DSN 584-3206

Pest Management and Pesticides
USACHPPM Entomology Program
(410) 436-3613
DSN 584-3613

DoD Pesticide Hotline
(410) 436-3773
DSN 584-3773

Pollution Prevention
USAEC (410) 436-4714
DSN 584-4714

USACHPPM Hazardous and Medical Waste Management Program
(410) 436-3651
DSN 584-3651

AAPPSO
(703) 617-2816
DSN 767-2816

Public Involvement
USAEC Public Affairs Office
(410) 436-2556
DSN 584-2556

Resourcing, Documenting and Reporting (Environmental Program Requirements)
USAEC (410) 436-1650
DSN 584-1650

Solid Waste Management
USACHPPM Groundwater and Solid Waste Program
(410) 436-2024
DSN 584-2024

USAEC
(410) 436-7069
DSN 584-7069

Stormwater
USACPW Sanitary and Chemical Division
(703) 806-5201
DSN 656-5201

USAEC
(410) 436-4714
DSN 584-4714

Technology Demonstration
USAEC
(410) 436-2466
DSN 584-2466

CERL Environmental Division
(800) USA-CERL (800-872-2375)

WES Environmental Engineering Division
(601) 634-3703

CRREL Research and Engineering Directorate
(603) 646-4265
DSN 684-4265

Training (Environmental)
ALMC Environmental Management Department
(804) 765-4806
DSN 539-4806

ALMC Registrar
(804) 765-4965
DSN 539-4965

USAEC
(410) 436-6899
DSN 584-6899

Army Corps of Engineers PDSC (registrar)
(256) 895-7420/7424
DSN 760-7420/7424

AEARC
(256) 895-7408
DSN 760-7408

CEIHOT
(580) 442-2111
DSN 639-2111

Water Management

USACHPPM Surface Water and Wastewater Program
(410) 436-3816
DSN 584-3816

USACE Environmental Support Branch
(202) 761-8801
DSN 763-8801

USAEC
(410) 436-4714
DSN 584-4714

Water Supply

USAEC
(410) 436-4714
DSN 584-4714

USACHPPM Water Supply Management Program
(410) 436-3919
DSN 584-3919

USACE Environmental Support Branch
(202) 761-8801
DSN 763-8801

Wetlands

EPA Wetlands Hotline
(800) 832-7828

USAEC
(410) 436-3206
DSN 584-3206

EPA Hotline (Oregon State University)
(800) 858-7378

EPA Federal Facilities Coordinators

EPA Region I (CT, MA, ME, NH, RI, VT)
(617) 565-3927

EPA Region II (NJ, NY, PR, VI)
(212) 637-3492

EPA Region III (DC, DE, MD, PA, VA, WV)
(215) 566-2750

EPA Region IV (AL, FL, GA, KY, MS, NC, SC, TN)
(404) 562-8520

EPA Region V (IL, IN, MI, MN, OH, WI)
(312) 353-6478

EPA Region VI (AR, LA, NM, OK, TX)
(214) 665-6430

EPA Region VII (IA, KS, MO, NE)
(913) 551-7400

EPA Region VIII (CO, MT, ND, SD, UT, WY)
(303) 312-7046

EPA Region IX (AZ, CA, HI, NV)
(415) 744-1569

EPA Region X (AK, ID, OR, WA)
(206) 553-1747

Army Regional Environmental Offices

Northern Regional Environmental Office (NREO)
EPA Regions I, II, III, V and DoD Region V
(410) 436-2427
Fax: 410-436-7110

Southern Regional Environmental Office (SREO)
EPA Region IV and DoD Region IV
(404) 524-5061
Fax: 404-524-5162

Central Regional Environmental Office (CREO)
EPA Regions VI and VII and DoD Region VII
(816) 983-3548
Fax: 816-426-7414

Western Regional Environmental Office (SREO)
EPA Region VIII, IX, X and DoD Region VIII
(303) 289-0260
Fax: 303-289-0272

ODEP Policy and Program Oversight Teams

Compliance
(703) 693-0545
DSN 223-0545

Conservation
(703) 693-0677
DSN 223-0677

Foundation
(703) 693-0548
DSN 223-0548

Pollution Prevention
(703) 693-0544
DSN 223-0544

Restoration
(703) 693-0643
DSN 223-0643

Range Rule
(703) 693-0548
DSN 223-0548

ODEP Areas of Specialization

Acquisition & Logistics (P2)
(703) 693-0544
DSN 223-0544

EQR/ISR
(703) 693-0670
DSN 223-0670

Alternate Fuel Vehicles
(703) 693-0544
DSN 223-0544

AR 200-1/DA Pamphlet 200-1 (Compliance)
(703) 693-0545
DSN 223-0545

AR 200-2 (NEPA, Foundation Team)
(703) 693-0548
DSN 223-0548

AR 200-3
(703) 693-0675
DSN 223-0675

AR 200-4
(703) 693-0675
DSN 223-0675

Archeology
(703) 693-0675/0677
DSN 223-0675/0677

Army Science Board
(703) 604-7474

Internet Resources

ODEP
http://www.hqda.army.mil/acsimweb/env/

USAEC Home Page
http://aec.army.mil/

Army Home Page
http://www.army.mil/

STRUCTURE

AN INSTALLATION'S ENVIRONMENTAL MANAGEMENT TEAM

Responsibility, authority and the Army's tradition of leadership come together in the installation's environmental management team. An installation's organizational structure determines the players on the team. As general rule, however, in addition to the installation commander, Installation Environmental Quality Control Committee, and senior representatives from tenant activities, the team consists of the following core personnel:

- Environmental Coordinator
- Director Plans, Training, & Mobilization
- Director of Public Works
- Director of Logistics
- Legal Advisor
- Pest Management Coordinator
- Preventive Medicine Activity
- Public Affairs Officer
- Safety Officer.

An installation's environmental management team is the standard bearer for integration of environmental values into the Army mission in order to sustain readiness, improve the soldier's quality of life, strengthen community relationships and provide sound stewardship of resources.

Environmental Quality Control Committee (EQCC)

Army policy assigns some of the most important management review responsibilities to the Environmental Quality Control Committee, or EQCC. AR200-1 directs installations, major subordinate commands and MACOMs to establish an Environmental Quality Control Committee (EQCC). An installation is defined as facilities that are the responsibility of the Reserve support commands, Army National Guard facilities that are the responsibility of state and territory adjutant generals and active duty installations. The EQCC's mandate is to coordinate environmental programs; advise the command on environmental policies, priorities, strategies and programs; and assist the commander in assessing environmental performance.

The EQCC also provides a forum to address and resolve complex environmental issues that can affect the installation. It gives those attending the meetings a chance to hear the installation commander's concerns and guidance on various environmental issues, as well as an opportunity to learn more about the impact of environmental considerations on installation operations.

Members of the EQCC include Directorate and Special staff and tenants that control operations having significant environmental impact. Committee meetings should be held at least once a quarter, and once a month when needed. The EQCC's administrative responsibilities are normally assigned to the DPW.

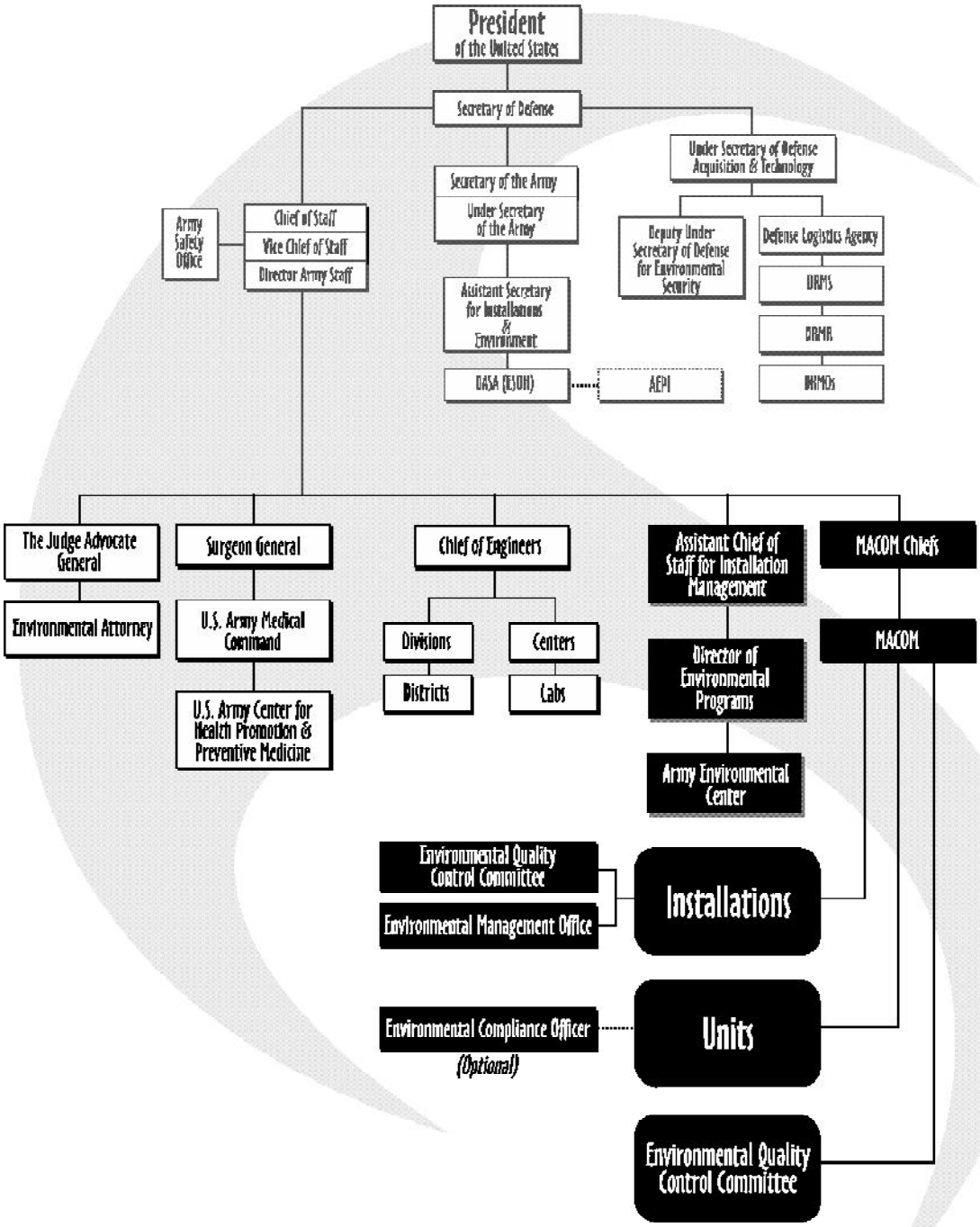
Many installation EQCCs have chosen to require military units to appoint an "Environmental Compliance Officer" or "ECO," who assists the unit in accomplishing environmental protection tasks. Training has been developed for persons designated ECOs (see "Training and Awareness").

Some Benefits of an Active Environmental Quality Control Committee

If the installation does not have an active, formal, Environmental Quality Control Committee (EQCC), consider the following:

- An EQCC provides a forum to address and resolve complex environmental issues that can affect the installation.
- Regularly scheduled (at least quarterly or at a minimum twice a year) EQCC meetings help installation commanders and staff learn more about the impact of installation activities on the environment, as well as the impact of environmental considerations on installation operations. Commanders and directors of tenant activities who attend EQCC meetings get both an environmental education and a chance to hear the installation's concerns and guidance on various environmental issues.
- Occasionally, questions raised during EQCC meetings may lead to discussions on controversial and unresolved issues. This gives attending subordinates a chance to hear first hand the installation commander's comments and guidance on complex subjects, and that can lead to swift and exponential action.
- AR 200-1 requires that installations conduct periodic EQCC meetings chaired by the installation commander. The regulation defines installations as facilities that are the responsibility of the Reserve support commands, Army National Guard facilities that are the responsibility of state and territory adjutant generals, and active duty installations. The regulation also calls for an EQCC at Department of the Army Headquarters and an EQCC or equivalent at the major command level.

THE ARMY'S ENVIRONMENTAL TEAM



Regional Environmental Coordination

Department of Defense (DoD) Instruction 4715.2 sets policy and procedures for regional environmental coordination within DoD. The DoD Regional Environmental Coordinators (RECs) facilitate the military's environmental programs at the state and regional levels and provide a regional focus for DoD environmental concerns and activities. A DoD REC is assigned to each of the 10 Environmental Protection Agency (EPA) federal regions. DoD responsibility for regional coordination is apportioned between the Army, Air Force, and Navy. The Army is the executive agent for standard federal regions IV, V, VII and VIII; the Navy is the executive agent for regions I, III and IX and the Air Force for regions II, VI and X.

When an environmental regulatory issue involves two or more of the services in their region, the DoD REC organizes joint communication of these concerns to regional regulatory authorities. DoD RECs also initiate and participate in partnering organizations and forums (such as those for pollution prevention) and serve as a focal point for coordinating regional environmental activities among the services, states and EPA regions.

Along with the other services, the Army established Regional Environmental Offices (REOs) in four geographical areas of responsibility (southern, northern, western and central regions) covering the United States and its territories. The Army-appointed DoD RECs serve as the REO chiefs.

Each Army REO staff includes Army Service RECs, who typically work on issues in a specific EPA region in their REO's area of responsibility. Army RECs coordinate the Army's environmental program with regulators on state and regional levels, and monitor and analyze state environmental regulatory and legislative activity (S-RAMP). Because the Army RECs primarily talk with state environmental departments, being ombudsman for Army environmental activities is a large part of the REO mission. The offices also facilitate consistent interpretation and application of Army environmental policies at Army installations, Army Reserve regional support commands and Army National Guard activities. This task includes ensuring major command awareness of initiatives that concern subordinate commands and those of the Army National Guard Readiness Center (National Guard Bureau) and the state adjutants general. Commanders are encouraged to use the REOs as a resource to assist them in achieving the Army's environmental stewardship goals and objectives.

Issues, comments and "Good News Stories" should be directed to your Army REC, who is located in the following Regional Offices:

NORTHERN REO - Aberdeen Proving Ground, Maryland
Army coordination for Regions I, II, III and V (DoD lead in Region V).

SOUTHERN REO - Atlanta, Georgia
Army coordination and DoD lead for Region IV.

CENTRAL REO - Kansas City, Missouri
Army coordination for Regions VI and VII (DoD lead for Region VII).

WESTERN REO - Denver, Colorado
Army coordination for Regions VIII, IX and X (DoD lead for Region VIII).

Environmental Legislative and Regulatory Analysis and Monitoring Program (EL/RAMP)

The Army established the Environmental Legislative and Regulatory Analysis and Monitoring Program (EL/RAMP) to inform Service leadership of new environmental requirements at their inception. This allows the Army to participate in the process-critical stages of lawmaking and regulation writing, so that new environmental requirements don't inadvertently impact military missions through unintended consequences. As new environmental requirements are developed, EL/RAMP produces requirement summaries, information papers, impact analyses, and, to the organization developing the proposed requirement, comments. EL/RAMP actively educates the developers of environmental requirements and, for new requirements, positions the military to develop effective compliance strategies in a timely manner in all environmental areas. Its activities include, but are not limited to, monitoring, prioritizing, analyzing and commenting on emerging, proposed, and final environmental requirements arising in new federal and state legislation, proposed or modified federal and state regulations, Executive Orders, or treaties, that can affect military operations.

EL/RAMP has three sections: federal legislation under DASA(ESOH), federal regulations are a USAEC mission under the ACSIM and state regulations and legislation are a duty of the Regional Environmental Offices. Successful execution of EL/RAMP includes involvement by the appropriate EL/RAMP program manager, technical media area managers, media area workgroups and organizations potentially impacted by an emerging requirement at all levels within the Army. **Input from installations and MACOM media managers greatly contribute to the reliability and accuracy of reported impacts.** In turn, installations having advance information of potential impacts are able to do more effective planning and more accurate programming for projected expenses.

IMPLEMENTATION AND OPERATION

DEVELOPING A STRONG ENVIRONMENTAL PROGRAM

Command emphasis and support is essential for a strong installation environmental program. Because the execution and success of the environmental program requires full commitment from all activities, not just the environmental office, the proper emphasis on the environmental program should be put at all levels of the installation.

Regular meetings between the commander and the environmental management team, which can consist of the environmental coordinator, public affairs officer, legal advisor, safety and occupational health manager, preventive medicine officer, resource manager, and land manager can demonstrate command emphasis and serve to nourish a healthy environmental program. The environmental management team should also brief the commander regularly on specific installation environmental issues.

Installation command should become familiar with the current versions of Army and MACOM environmental regulations. Army environmental regulations are primarily in the 200 series, specifically ARs 200-1 through 200-5; however, some supporting ARs will remain in the 420 series.

Command staff should periodically review documentation received from regulatory agencies with the environmental coordinator and make sure environmental requirements are identified and transmitted to various support organizations through the MACOMs or other appropriate chain of command.

Include support and involvement in the program in the relationship between the commander and tenant commanders. Strive for early and close coordination between tenant command staff and weapon system managers, and range and operations staff.

Develop good working relationships with regulatory and other officials from the EPA, the U.S. Fish and Wildlife Service and state and local agencies or groups.

Develop an active Environmental Quality Control Committee (EQCC) that convenes monthly. The more effective EQCCs are those that are chaired personally by the commander. Ensure the attendance of the director of each major staff section and representatives from legal, medical, safety, range management, resource management, public affairs, logistics, Defense Reutilization and Marketing Office. Encourage the active participation of tenant commanders in EQCC meetings.

ATTAINING AND MAINTAINING COMPLIANCE

Important Actions an Installation Can Take to Achieve and Maintain Compliance

- Demonstrate both command and the installation's concern for environmental compliance.
- Establish an active environmental training program.
- Establish standard operational procedures that incorporate environmental considerations.
- Establish internal enforcement mechanisms.

An installation's most important tool for achieving and maintaining compliance is a strong and active environmental coordinator who is supported by a solid environmental management team.

Once you have determined that you are out of compliance, you should

- Notify your MACOM.
- Negotiate with the regulatory agency on compliance requirements and timetables.
- Ensure any proposed compliance agreements are reviewed by the Department of the Army Environmental Law Division.
- Develop a corrective action plan (some MACOMs call this an environmental management plan).
- Prepare and submit an Environmental Program Requirements (EPR) report for each project requirement (the Supplementary Reading section explains the EPR process).
- Implement your corrective action plan.
- Seek help from support agencies.

Notifying the MACOM of program requirements is critical to receiving the resources necessary to achieve and maintain compliance. Command should review the EPR report before it is sent to the MACOM. The program requirements should be identified in the installation budget submission to your MACOM.

Coordination With Other Agencies

Installations are required to coordinate their activities with relevant regulatory agencies, such as:

- The U.S. Fish and Wildlife Service
- The Advisory Council on Historic Preservation
- The State Historic Preservation Office
- The Council on Environmental Quality

These agencies do not perform actual inspections or issue Notices of Violations, but statutory authority requires installations to perform specific assessments, coordinate reports and consult with agencies before taking certain actions.

Awards

Environmental awards provide opportunities to recognize the hard work of dedicated environmental staff, as well as to allow an installation to show the local public and the regulatory community its commitment to environmental excellence. Opportunities to review the installation's environmental program successes and to consider means of improvement are additional reasons for participation.

The Army encourages participation in awards programs, including:

- Secretary of the Army Environmental Awards (winners compete with other services for DoD awards)
- DoD Environmental Security Awards
- Specialized awards from within your MACOM
- Local, regional and national non-DoD environmental awards
- Local (installation) award programs.

Both the Army and the DoD awards are presented in Pentagon ceremonies, normally in April, each year.

ENVIRONMENTAL TRAINING AND AWARENESS

Best use of available resources for appropriate training for selected groups or individuals can make the difference in both quality of life and an installation's compliance status. Ensuring that personnel on the installation are well informed is good for both the installation and the Army. Personnel need to know how to accomplish their tasks, while complying with environmental regulations, in a manner that meets Army environmental standards. AR 200-1 requires training be provided to appropriate personnel when legally required, that training and certification records be maintained in accordance with governing laws and regulations, and that all installation personnel be trained

- to perform their jobs in an environmentally responsible manner, and
- to respond properly to an environmental emergency.

There are many confusing and overlapping requirements in the various environmental, safety and occupational health training regulations (see the section on legal requirements below). These may result in costly over-training or under-training. AR 200-1 recommends that you figure out how to provide the right training cost-effectively by developing, through the combined efforts of your Environmental Quality Control Committee's member organizations, an installation-wide environmental training program. This may be supplemented by a comprehensive written plan. However, the miminum requirement is a simple document that states what training is required, for whom, and how they can get it.

AR 200-1 also requires that organizational and unit environmental compliance officers (ECOs) be appointed and trained to help unit commanders, supervisors and managers meet their environmental responsibilities. The regulation leaves the appropriate organization levels for these appointments to command discretion, ECOs should get their primary compliance information from briefings, local regulations, and/or other guidance from the installation Environmental Coordinator and his or her staff. This should be supplemented by classroom training especially when legal training requirements apply. An installation Train-The-Trainer program may be an appropriate approach to allow the ECOs to pass specific compliance requirements on to soldiers and civilian workers.

Supervisors and small-unit commanders may also need training, provided by installation environmental staff or outside sources, to understand what is required of them. Upper-level managers and senior commanders need training to increase awareness of both their overall environmental responsibilities, and how their decisions can influence not only the installation's environmental quality, but environmental considerations in mission readiness.

Legally Required Environmental Training

Many environmental laws require specific training requirements for personnel performing certain tasks or activities. The details are normally in the federal or state regulations, which usually include refresher training requirements and specific recordkeeping. Sometimes the qualifications of the individual trainer or the military or corporate training provider are specified in the regulations. Among the types of required training are the following:

- Hazardous waste generators and accumulation points, shipping, and permitted storage or waste treatment. Annual training required.
- Packing, receiving, transporting and certifying hazardous materials shipments. Refresher training required every two years.
- Work with hazardous or toxic chemicals (except soldiers performing military-unique tasks). Some specific chemicals require training if workers could be even infrequently exposed to hazards. Initial training must be supplemented if hazards change.
- Uncontrolled hazardous waste site investigations and cleanup. Annual training required for those working, visiting, or supervising workers at these sites.
- Asbestos demolition and removal, maintenance and repair work involving asbestos disturbance, and asbestos sampling. Refresher requirements vary.
- Exposure to lead-based paint during building maintenance, repair, demolition or removal. Refresher requirements vary.
- Discovery and response to spills of oil or hazardous substances. Annual training required.

- "Restricted Pesticide" application. Refresher training required every third year.
- Operating boiler plants, incinerators, and water or wastewater treatment facilities (initial and refresher training as required by your state).

In some cases, properly documented on-the-job training sessions may be sufficient to meet these requirements. In other cases, formal training (classroom or "distance learning" options) may be required.

Army Environmental Training Resources

Army Logistics Management College (ALMC) at Fort Lee, Virginia (http:// www.almc.army.mil/EMD/) is the basic source for Army installation environmental management training through the "Basic Environmental Staff Course," the "Executive Environmental Overview Course," and the "National Environmental Policy Act Implementation Course." It also provides the "Defense Hazardous Materials/Waste Handling Course" (initial training) and the "Defense Hazardous Waste Refresher Course." No tuition is required except for non-DoD employees and contractors.

Corps of Engineers Professional Development Support Center (PDSC) at Huntsville, Alabama operates the Proponent Sponsored Engineer Corps Training (PROSPECT) program. The PROSPECT program includes environmental training in scientific and technical areas related to Corps civil and military support missions. Among the course topics of interest to installation staff are historic building preservation and maintenance, wetlands regulations and management, and environmental impact assessment. Tuition charges apply. The PDSC web site at (http://pdsc.usace.army.mil/) includes a downloadable copy of their course catalog, the "Purple Book."

Army Training and Doctrine Command (TRADOC) has incorporated environmental awareness training into Army military school curricula through its proponent) for environmental training integration, the US Army Engineer School (USAES), at Fort Leonard Wood, Missouri. Their web site (http://www.wood.army.mil/ENVIRON/en_hp.htm) includes links to many of USAES's products, including training support packages (video, instructor guide, student materials) for units, environmental awareness correspondence courses for soldiers, and other resources. Of special interest is "Environmental Considerations in Military Operations," FM 3-100.4. This manual contains basic procedural guidance for unit commanders and their staffs, and can be downloaded from the Army Digital Library at http://www.adtdl.army.mil/cgi-bin/atdl.dll/fm/3-100.4/toc.htm.

Interservice Environmental Education Review Board (ISEERB)

In addition to ALMC and PDSC, the following schools of other Defense Services, plus the Defense Logistics Agency (DLA), provide environmental training. Some of their courses are specifically approved by the ISEERB for use by more than one Component.

- Air Force Institute of Technology (AFIT), Dayton, Ohio (http://cess.afit.af.mil/)
- Air Force School of Aerospace Medicine (AFSAM), San Antonio, Texas (http://wwwsam.brooks.af.mil/)
- Navy's Civil Engineer Corps Officers' School (CECOS), Port Hueneme, California (http://www.cecos.navy.mil/)
- Defense Logistics Agency's DLA Training Center, Columbus, Ohio (http://www.hr.dla.mil/)

HANDLING PUBLIC INVOLVEMENT

The terms public relations and public involvement are not interchangeable.

PUBLIC RELATIONS is a planned effort to influence opinion through socially responsible performance, based on satisfactory two-way communication.

PUBLIC INVOLVEMENT is a planned effort to involve citizens in the decision-making process and to prevent or resolve citizen conflict through two-way communication. Despite the differences, there are several common elements of public involvement and public relations.

The importance of public involvement to an installation environmental program cannot be overemphasized. Many installations have learned tough lessons from negative news coverage, citizen-generated congressional interest, and adverse public reaction — all reflections of inadequate public involvement.

Negative news coverage, irate political representatives and adverse public reaction are distasteful, and they are not the primary reasons why the Army actively seeks public involvement. The main reasons are:

It's Critical for Mission Accomplishment

Whether the environmental issue is storing hazardous waste or building a barracks complex, the goal is to get the job done. Citizen reaction has stopped many projects, either through political pressure or the courts.

It's the Law

Virtually every environmental law calls for public involvement. Some requirements are more extensive than others, based on the environmental process being applied to a given situation or operation.

Regulatory Requirements

Six major areas of environmental law and regulation require your installation to sponsor or participate in public involvement efforts.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA). A public notice and comment period is required before proceeding with actions that may have environmental impacts, except for some proposed actions that may meet specific defined exclusion requirements. The degree of effort required depends on whether you are producing an Environmental Impact Statement (EIS), where the environmental impacts of the installation's project are predicted to be significant, or an Environmental Assessment (EA), where the impacts are measurable but may not reach the level deemed significant.

ENVIRONMENTAL NOISE. Environmental noise is one environmental issue on which practically any citizen is willing to express a direct complaint. Your Installation Compatible Use Zone (ICUZ) program lets you control and plan for environmental noise issues and limit noise-related constraints on mission activities. ICUZ public involvement includes responding to complaints, involvement with local planning boards and public relations efforts to explain the necessity of your missions and your actions to limit noise impacts.

SIKES ACT (Conservation Programs on Military Reservations). Providing opportunities for the public, which may involve a wide range of stakeholders—from hunters to environmental groups—to comment on Integrated Natural Resources Management Plans (INRMPs) and proposed changes to cooperative plans is a Sikes Act requirement.

ENVIRONMENTAL RESTORATION. Cleanup investigations and activities under the Defense Environmental Restoration Program (DERP) include public interaction through Restoration Advisory Boards' public comment periods and, sometimes, formal public meetings.

NATIONAL HISTORIC PRESERVATION ACT (NHPA). The National Historic Preservation Act provides for public participation in the Section 106 process. NHPA requires that the installation seek and consider the views of the public "in a manner that reflects the nature and complexity of the undertaking and its effect on historic properties." You are also required, except in cases where confidentiality concerns are affected, to provide the public with information about an undertaking and its effect on historic properties. This public involvement may be accomplished under NEPA or other program requirements, provided that these measures afford adequate opportunities for public involvement. NHPA requires that you consult with other parties as well, including the State Historic Preservation Officer, or Tribal Historic Preservation Officer on tribal lands, Indian Tribes and Native Hawaiian organizations, representatives of local governments, and applicants for Federal assistance, permits, licenses and other approvals.

NEW AND MODIFIED PERMITS. Permits required under the Clean Water Act (for wastewater treatment plant discharges), Safe Drinking Water Act (water treatment plant), Clean Air (air emission sources), Resource Conservation and Recovery Act (certain solid and hazardous waste operations) and other laws normally include public meetings or hearings as part of the regulatory permit approval process. The regulatory agency (state or federal) is usually in charge of these.

Working With the Community

The Public

Typically, citizens become involved in environmental issues when they feel left out of the decision-making process. Projects avoid delays when citizens are offered some part in the environmental process from the start. Interested groups and other stakeholders should be afforded the opportunity to participate. Adverse public reaction ties up technical resources and expertise that should be dedicated to accomplishing the task.

A progressive and successful program helps a project along. These activities should be managed by the public affairs officer (PAO) in close coordination with other members of the Environmental Management Team. The PAO is responsible for identifying and preparing plans for meeting public involvement requirements associated with environmental programs.

At installations that lack public affairs personnel, the installation environmental staff will be responsible for public involvement planning. The public affairs staff at your MACOM headquarters and the U.S. Army Environmental Center (USAEC) can provide assistance.

Interacting With the Community

- Understand that the environment belongs to everyone.
- Know the difference between public relations and public involvement.

- Know that the average citizen distrusts the government's representation of issues, so openness and honesty are crucial.
- Don't take criticism personally.
- Establish an expert contact (preferably in the Public Affairs Office).
- Invite comment, even from potential opponents.
- Strive for objective and accurate, but not necessarily positive, news coverage.
- Never release information selectively or stretch the truth.
- Maintain current fact sheets and question-and-answer papers.
- Provide any requested information as soon as possible.
- Don't be afraid to say, "I don't know," and be prepared to search for answers.
- Offer briefings, site visits, and tours of your facility.
- Publicize internal and external environmental awards to recognize excellence and inform the public.

Elected Officials

Many citizens will turn to their elected officials with a complaint or concern about the community. These officials can point out the need for more information and help open the lines of communication.

Implement a progressive public involvement program that provides citizens with information. This program should include methods for keeping elected officials informed of the overall environmental program, and particularly of proposed actions or operations that may have environmental consequences.

Consider regularly sending fact sheets or news releases about installation environmental activities to elected officials. You may also want to provide tours or briefings on environmental programs to officials and their representatives to help them understand the issues.

Elected officials appreciate personal attention from the commander. Face-to-face communication with elected officials increases credibility and cements working relationships.

Finally, remember that consultation with federally recognized Indian Tribes must be conducted on a government-to-government basis, in accordance with DoD policy (DoD American Indian and Alaska Native Policy).

Restoration Advisory Boards

Several years ago representatives from the Environmental Protection Agency, the Defense Department, states, Native American tribes, educational institutions and citizens' groups recommended forming citizens' advisory boards to enhance public dialogue at sites undergoing environmental cleanup. This concept became the Defense Department's Restoration Advisory Board (RAB) program.

The RAB not only provides a way to explain a cleanup program to the public; it also is a good forum for listening to what the public has to say about the installation's cleanup program. Occasionally, citizen input through a RAB has saved money and time. In any case, RAB participation enables citizens to be more involved in cleanup decisions that affect them and their families.

Although the program was initially geared toward facilitating cleanup and property transfer at Base Realignment and Closure sites, the Defense Department and Army requires all installations to determine interest in establishing a RAB. Commanders are encouraged to be personally involved in RABs and to determine if there is sufficient community interest in forming RABs where they don't exist. A RAB is no substitute for other community involvement activities, but it can be a powerful tool for dialogue with a community.

The Technical Assistance for Public Participation (TAPP) program was established in 1998. It provides community members of RABs with access to independent technical support provided by government funding through the use of government purchase orders. The TAPP program is designed to help community members understand scientific and engineering issues pertinent to the installations environmental restoration activities. Installations may need to ensure that their contracting offices are aware of the TAPP program.

Awards Programs

Environmental Awards provide a good opportunity to recognize the hard work of dedicated environmental staff, while demonstrating to the local public and the regulatory community the installation's commitment to environmental excellence.

Installations are authorized to develop internal awards programs to recognize outstanding environmental performance and especially to promote specific environmental programs. For example, under a qualifying recycling program, part of your net proceeds can be used to reward organizations doing the greatest amount of recycling.

CHECKING AND CORRECTIVE ACTION

DETERMINING COMPLIANCE

An installation's environmental compliance status can primarily be determined in two ways. One way is through a formal inspection by a regulatory agency, such as EPA and state agencies. The Army prefers the second way, through the Environmental Compliance Assessment System (ECAS) program.

Environmental Compliance Assessment System (ECAS) Program

The ECAS external assessment gives a comprehensive "snapshot" of the installation's compliance status, while the ECAS internal assessment provides the day-to-day status. The goal of the program is to attain, sustain and monitor compliance with applicable environmental regulations by planning and programming resources to implement corrective actions.

The ECAS program addresses environmental regulatory compliance in the following media and management areas:

- Air Emissions
- Cultural Resources

- Hazardous Materials
- Hazardous Waste
- Natural Resources
- National Environmental Policy Act (NEPA)
- Environmental Noise
- Installation Restoration
- Pollution Prevention
- Ozone Depleting Chemicals (ODCs)
- Program Management
- Pest Management
- Petroleum, Oil and Lubricant
- Solid Waste
- Storage Tank
- Toxic Substances
- Wastewater
- Water Quality (potable water)

AR 200-1 requires that installations undergo external assessments at least once every three years. Cycle periods can be increased or decreased with permission of the Office of the Director of Environmental Programs (ODEP), Assistant Chief of Staff for Installation Management (ACSIM). The installation's MACOM coordinates its external assessments, which are performed by various independent groups, Army agencies or contractors.

Except during the years of an external assessment, internal assessments are encouraged but not required by AR 200-1. However, Installation Correction Action Plans (ICAPs), which are usually a result of external and internal assessments, are reported in the Installation Status Report Environment.

Several tools are available for both types of assessments: a federal compliance protocol used by the majority of CONUS military services, called The Environmental Assessment Management (TEAM) Guide; a state compliance protocol for each state; active Army, Army National Guard, and Army supplements that include particular agency and DoD regulations and best management practices; and operation-specific "User's Guides" to help Army installation personnel easily perform internal assessments.

An Army-wide centrally maintained Web-based ECAS software is available which helps installation personnel record findings, corrective actions and the status of each. The ECAS software also is part of the Army Environmental Database (AEDB) that gives installation personnel immediate access to other environmental data management systems such as EPR, EQR, DSERTS and ISR.

The commander and command staff can actively support assessments and those performing them by participating in the pre-briefing, the daily summary meetings and the exit briefing; by making sure that the installation staff reviews the findings in a timely manner; and by helping to select the corrective actions that the installation can achieve.

The findings of the external assessment, recommended corrective actions and resources needed to achieve compliance are formally documented in a Environmental Compliance Assessment Report (ECAR), usually no later than 11 weeks after the on-site assessment. The ICAP associated with the external assessment becomes the starting point for the internal assessments. The ICAP is a "living" or working document that remains always in draft form. Installations are encouraged to present the status of the ICAP at each installation Environmental Quality Control Committee (EQCC) meeting to inform installation organizations of the progress of compliance on the installation.

The external assessment team may not address every environmental program area and probably not all operations, so remember to include those not assessed in the internal ECAS assessment.

DOCUMENTING, REPORTING AND RESOURCING

Environmental reporting is one of the Army's primary means of monitoring, measuring and documenting its environmental management performance. A required and necessary part of operations, it also provides information supporting reasoned strategic planning, decision making and resourcing, from the unit in the field to HQ, DoD and Congress and can influence every aspect of those operations.

Installations are required to submit numerous regulatory and Army Reports. The frequency of regulatory reports depends on the program area. Reporting requirements also vary from state to state, and MACOM may have additional reporting requirements. These reports can assist command in keeping aware of environmental matters, as well as providing advance warning of an installation's specific environmental issues.

Army higher headquarters require four principal, automated environmental reports: the Installation Status Report Environment, the Environmental Program Requirements (EPR) Report, the Environmental Quality Report (EQR), and the Defense Sites Environmental Restoration Tracking System (DSERTS). Only HQDA submission dates are given in the following brief summaries of some of the major reports for which installations are required to submit data, because installation deadlines may be set by your MACOM.

Environmental Quality Report (EQR)

Environmental Quality Reporting is a Web-based data collection system that serves as the primary source of information for conveying the Army's environmental status. As a reporting tool, EQR is used to track Army adherence to environmental laws for pollution prevention, compliance, pest management, cultural, and natural resources environmental media areas. Tracking indicators include inspections, enforcement actions (ENFs), permits, conservation management plans, archeological and Native American resources, wetlands, threatened and endangered species and other program parameters, collected on a quarterly and annual basis.

Installation Status Report (ISR) Environment

The Installation Status Report (ISR) Environment, formerly known as ISR Part II, was instituted by the Army Chief of Staff in 1995. Its purpose is to improve the management of limited resources for installations through improved resource justification, prioritization and a focus on mission accomplishment. It is a Commander's report, similar to the Unit Status Report (USR), using Condition (C) ratings to measure conditions at the installation against Army-wide standards. The report also includes summary level resource and requirements information to assist in prioritizing and justifying environmental program requirements. The ISR provides military leaders at all levels a concise picture of installation status and resources and parallels readiness reporting within the operation community. ISR Environment data is submitted to HQDA in May each year.

Environmental Program Requirements (EPR)

The EPR report is the programming, budgeting and resource allocation source document for the Army Environmental Program. It indicates the status of current projects and shows past accomplishments and expenditures, and is used to refine and validate requirements for the current budget year and to support planning, programming and budgeting for the out-years, as well as to build the Program Objective Memorandum (POM). In addition, EPR data is used to generate Congressionally mandated lists of funded projects for DoD's Environmental Quality Report to Congress. EPR data is submitted to HQDA in December, and by HQDA to OSD in February. An optional submission to HQDA occurs in May.

Defense Site Environmental Restoration Tracking System (DSERTS)

DSERTS is an automated method tool that helps meet upward reporting requirements and manage the Army's Installation Restoration Program and Base Realignment and Closure (BRAC) Environmental Restoration Program. It is a source of information for the DERP Annual Report to Congress, BRAC cleanup plans and Installation Action Plans. DSERTS also tracks site level cost-to-complete and relative risk site evaluation data. DSERTS is submitted to HQDA in November and March, and HQDA submits to OSD in November.

Other Major Reports Installations Are Required to Submit

Resource Conservation Recovery Act (RCRA) 3016

RCRA 3016 is submitted to HQDA biennially on 30 January of even years, and is an inventory of RCRA-required hazardous waste activities on federal property. Each federal agency must compile, publish and submit to the EPA an inventory of sites that it either owns or operates (or has owned and operated) at which hazardous waste is or was stored, treated or disposed of. When sites are in states with an authorized hazardous waste program this report also must be submitted to the appropriate state agency.

Annual Reforestation Report

The Annual Reforestation Report is submitted to HQDA in October and by HQDA to U.S. Forest Service (USFS) in January. The data for the Army's annual Reforestation Report is collected in surveys that are entered in the fall EQR data call. The USFS requests information annually from federal agencies on the number of acres that have been reforested for a national report that USFS compiles on federal reforestation, categorized by state. Although there is no legal requirement for this report, it is Army policy that to comply with the request is a land management responsibility.

Emergency Planning and Community Right-To-Know Act (EPCRA) – Toxics Release Inventory TRI) Report

The TRI is submitted to HQDA on 1 July and by HQDA to OSD on 1 September. The TRI report sets the baseline and marks progress toward the federally mandated 50-percent reduction in toxic chemical releases and transfers. Annual releases and transfers off-site, by Army facilities, of

more than 600 toxic chemicals are reported to EPA, states and HQDA in the TRI report. Compliance with EPCRA reporting requirements is required by Executive Order 12856.

DoD Pest Management Program Report

The Army collects the data for the Army's pesticide management report in surveys defined in the fall (October) EQR data call, and this report is submitted by HQDA to OSD the following March. The pesticide management information is requested annually from all the services by DoD. Army input to this DoD report includes information on installation pesticide management plans, quantities of pesticides applied on installation property and certification information for pesticide applicators.

DoD (Pest Management) Measures of Merit Report

This report is submitted to HQDA in January and by HQDA to OSD in February. The data for this report is collected through EQR and verified by independent MACOM queries. DoD requests pest management program information from the services annually in three Measures of Merit (MOM) reports. The MOMs address installation pest management plans, installation pesticide usage and certification of pesticide applicators.

Secretary of Interior's Report to Congress on Federal Archeological Activities

HQDA compiles the Army's archeological activities report for subsequent submission to the Secretary of Interior from data collected in surveys defined in the fall (October) EQR data call. Annually each federal agency having land management responsibilities provides the Interior Department information with standardized information on its archeological activities during that year. The Secretary of Interior's Report to Congress on Federal Archeological Activities is mandated through Statute 16 USC Section 470ll and the Archeological Resources Protection Act of 1979.

Annual Threatened and Endangered Species Expenditure Report

Data for the Army's threatened and endangered species expenditure report is collected from the Fall EQR. It is due at HQDA in October and is submitted to OSD in November-December. The Army's information is compiled by the U.S. Army Environmental Center (USAEC) and forwarded to the Office of the Director of Environmental Programs (ODEP). OPEP submits the report to the Deputy Assistant Secretary of the Army for Environment, Safety, and Occupational Health (DASA(ESOH)). DASA(ESOH) sends the report to DoD, DoD forwards it to the U.S. Fish and Wildlife Service (USFWS) and the USFWS provides a report to Comgress.

Expenditures identifiable to threatened and endangered species are collected annually by the Fish and Wildlife Service, as mandated by the 1988 amendments to the Endangered Species Act of 1973

Solid Waste Annual Report

The Solid Waste Annual Report is submitted to HQDA in November and by HQDA to OSD in December. It accompanies the Environmental Quality Report to Congress and is driven by RCRA Section 6002 (d).

Automatic Reimbursement Authority Report

DFAS-IN, MACOMs and Corps of Engineers district offices have been tasked by memorandum to provide these reports. Deadlines for submission to HQDA are 15 February, 15 May and 15 August (fourth quarter is exempt). For soundness, fiscal aspects of the Army's forestry program are managed using reports of proceeds and expenses.

Budget Information for Wildlife, Fish, and Game Conservation, Military Reservations

Submission is to HQDA where the information is reconciled and authorized.

Biennial installation budget request and fee collections (21X5095 account) from hunting, fishing and trapping, report submitted in response to memoranda from the ACSIM.

ITAM Program Resourcing

Integrated Training Area Management (ITAM) is a program supporting commanders. The installation DPTM, or State POTO (or equivalent), with the assistance of their ITAM staff, prepare an annual ITAM workplan. That workplan is submitted to the MACOM in accordance with MACOM procedures, validated by the MACOM and submitted to the HQDA proponent (Training Directorate, ODCSOPS). The collective workplans provide the basis for ITAM funding within the Army Training Program (Training PEG). ITAM requirements are *not* reflected in the EPR. Deadline for installation submission to MACOM is January.

PROCESS IN SITUATIONS OF NONCOMPLIANCE

If regulatory inspectors find noncompliance at the installation, the regulatory agency will issue a Notice of Violation (NOV) or an equivalent, written compliance request. The NOV prescribes what you must do, by when, to meet compliance—but not how to do it. Although timetables and notices vary by program area, an installation generally has about 30 days to respond to the regulatory agency.

Most NOVs can be resolved between the installation and the regulatory agency. However, Army policy requires you to immediately notify your MACOM when the installation receives an NOV.

If the installation fails to adequately respond to the NOV, or regulators feel there is an imminent, substantial threat to human health or the environment, the EPA or the state will seek to negotiate a Compliance Agreement or Consent Order. The EPA Yellow Book describes the regulatory enforcement strategy for federal facilities. The negotiated Compliance Agreement or Consent Order will specify actions and a completion schedule. These are mutually agreed upon corrective action plans.

At government-owned contractor-operated (GOCO) installations, the EPA may seek enforcement actions against both the government and the contractor.

Noncompliance in other areas, for example in procedural resolutions such as the National Environmental Policy Act or the National Historic Preservation Act, can result in a restraining order or injunction that halts activity until those procedural compliance steps are taken.

If you find compliance deficiencies by some other means (usually through self-inspection), coordinate with your MACOM to determine a course of action. The installation should develop and budget for corrective actions addressing compliance deficiencies.

INTRODUCTION TO PART II

Part II of the Installation Environmental Program Management Guide contains more detailed introductory information about major Army environmental programs and areas. Part II is intended for both subordinate officers and staff, who may need a quick grounding in a particular environmental area, and for environmental personnel who are either new to a particular environmental duty or who lack installation experience, as well as Commanders seeking more information about a particular environmental subject area.

The subjects in Part II are arranged alphabetically within five categories: (1) Integrated Programs which contains areas like ranges and NEPA that cross environmental management boundaries usually found on installations or that involve multiple laws and regulations; (2) Conservation, which consists of Natural and Cultural Resources programs; (3) Compliance, membership in which is determined by the laws and regulations, such as the Clean Air Act, the Clean Water Act or RCRA that govern the program; (4) Pollution Prevention (P2); and (5) Restoration.

The environmental professionals at the Army Environmental Center, who are responsible for the information provided, have endeavored to make it current and accurate, as well as concise. However, for the most recent or more specific information, we urge readers to go to USAEC's website at http://aec.army.mil/ , or to contact our subject matter experts through either our Web page or AEC's Environmental Hotline at 1-800-436-1699 (DSN 584-1699).

INTEGRATED PROGRAMS

INTEGRATED TRAINING AREA MANAGEMENT (ITAM) PROGRAM

Integrated Training Area Management (ITAM) establishes a systematic framework for making decisions on the use of Army training lands, by integrating elements of operational, environmental, master planning, and other programs to identify and assess land use alternatives. Training Directorate, Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS) is the proponent and has responsibility for the ITAM Program.

OBJECTIVES

THE ARMY'S PROGRAM OBJECTIVES

- Avoid or minimize adverse mission impacts by integrating mission activities with the capability of the land to support them.
- Cooperate with local, state, and federal organizations in carrying out national land use and conservation policies.
- Develop and implement programs and plans to maintain and improve environmental quality, aesthetic values, and ecological relationships.
- No net loss of training lands.
- Coordinate all ITAM related natural and cultural resources projects with the installation's environmental offices.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Establish optimum staffing of professionally trained personnel.
- Implement and/or sustain an ITAM program.
- Seek supplementary aid from appropriate natural resources agencies (federal, state, and local) for technical assistance.
- Verify that planning level surveys are completed and maintained.
- Structure land management programs to support (or have no negative impact on) mission operations.
- Develop cooperative agreements with appropriate natural resources agencies.
- Determine the most environmentally acceptable land use by considering such factors as soil, water, vegetation, climate, and topography.
- Ensure close coordination with the installation conservation staff.

LAND: INTEGRATED TRAINING AREA MANAGEMENT (ITAM)

Lands that support military missions are valuable Army assets. The Army recognizes that training to doctrinal standards will impact the environment. The primary goal of land management is to ensure the long-term availability of land and natural resources for mission activities. This goal is compatible with and depends on sound stewardship and conservation practices.

Natural ecosystems play a vital role in a healthy environment, and installations can best maintain ecosystems by giving special consideration to soil and vegetation characteristics, surface and subsurface water, wetlands, archeological and geological sites, flood plains, and wildlife resources in their operations, development, design, construction, and maintenance activities.

The Army incorporates ecosystem management principles into the Integrated Training Area Management (ITAM) program, the comprehensive approach to land management on Army installations.

ITAM includes four components:

LAND CONDITION TREND ANALYSIS (LCTA), a management procedure that provides for collecting, inventorying, monitoring, managing, and analyzing tabular and spatial data concerning land conditions on an installation.

TRAINING REQUIREMENTS INTEGRATION (TRI), a decision-support procedure that integrates training requirements with processes to manage land, training, and natural and cultural resources. TRI also accounts for data derived from LCTA and Army conservation program components.

LAND REHABILITATION AND MAINTENANCE (LRAM), a preventive and corrective land rehabilitation and maintenance procedure that reduces the long-term impacts of training and testing on installation lands.

ENVIRONMENTAL AWARENESS (EA), a means to develop and distribute educational materials to land users. Materials relate procedures for sound environmental stewardship of natural and cultural resources and reduce the potential for inflicting avoidable impacts.

An effective installation ITAM program increases training realism, promotes effective land rehabilitation, abates environmental damage, reduces costs for land management and environmental compliance, and enhances the Army's public image as a conscientious land steward.

CURRENT REGULATIONS

CURRENT REGULATIONS

To accomplish the Army mission while complying with environmental requirements, some major areas that must be addressed include:

- AR 350-4, *Integrated Training Area Management (ITAM),* sets forth the objectives, responsibilities, and policies for integrated range and training area management under the ITAM Program.
- Soil conservation and maintenance of ground cover to stabilize soil and reduce erosion (as directed by Public Law 74-46, Soil Conservation).
- Provision of sediment control structures to ensure that sediments do not enter streams or other water bodies, maintain training grounds, and comply with the Clean Water Act

(CWA) and non-point source pollution requirements.

- Protection of wetlands and other sensitive areas to ensure no net loss or alterations (as directed by the CWA).
- Planning level surveys of threatened and endangered species, vegetation, topography, soils, wetlands, surface waters, flora, and fauna so that use and management activities may be planned and implemented to ensure the sustainment and best use of natural resources. Generally, carrying out national land-use and conservation policies is required on all federal lands to the extent practicable and without affecting the assigned mission. These policies are incorporated in AR 200-3, which also contains guidelines for Integrated Natural Resources Management Plans.
- On installations where ITAM is fielded, integrate the components of the ITAM program as a primary, implementation vehicle of the INRMP and ensure the INRMP reflects mission requirements for ranges and land (current and future) as developed through the Ranges and Training Land Program,l specifically the Range Development Plan.

Land management uses a significant amount of appropriated funds. Also, revenues from the agricultural and outlease program are available for use in an installation's Natural Resources Management Program under Title 10 USC (United States Code) 2667(d).

REFERENCES

REFERENCES

AR 200-3, Natural Resources—Land, Forest and Wildlife Management, February 1995.

AR 350-4, Integrated Training Area Management (ITAM), 8 May 1998.

AR 405-80, Granting Use of Real Estate, February 1989.

DoD Instruction 4715.3, Natural Resources Management Program, May 1996.

ACSIM (DAIM-ED-N) Memorandum, Subject: Army Goals and Implementing Guidance for Natural Resources Planning Level Surveys (PLS) and Integrated Natural Resources Management Plan (INRMP), 21 March 1997.

HQDA, Integrated Training Area Management (ITAM) Program Strategy, 18 August 1995.

NEPA PROGRAM

THE ARMY'S PROGRAM OBJECTIVES

OBJECTIVES

- Integrate environmental considerations into the decision-making process.
- Match military mission activities with the ecological compatibility of the land and natural resources.
- Identify and plan for environmental requirements that will apply to mission activities (helps avoid mission delays).

COMMANDER'S ROLE

COMMANDER'S ROLE

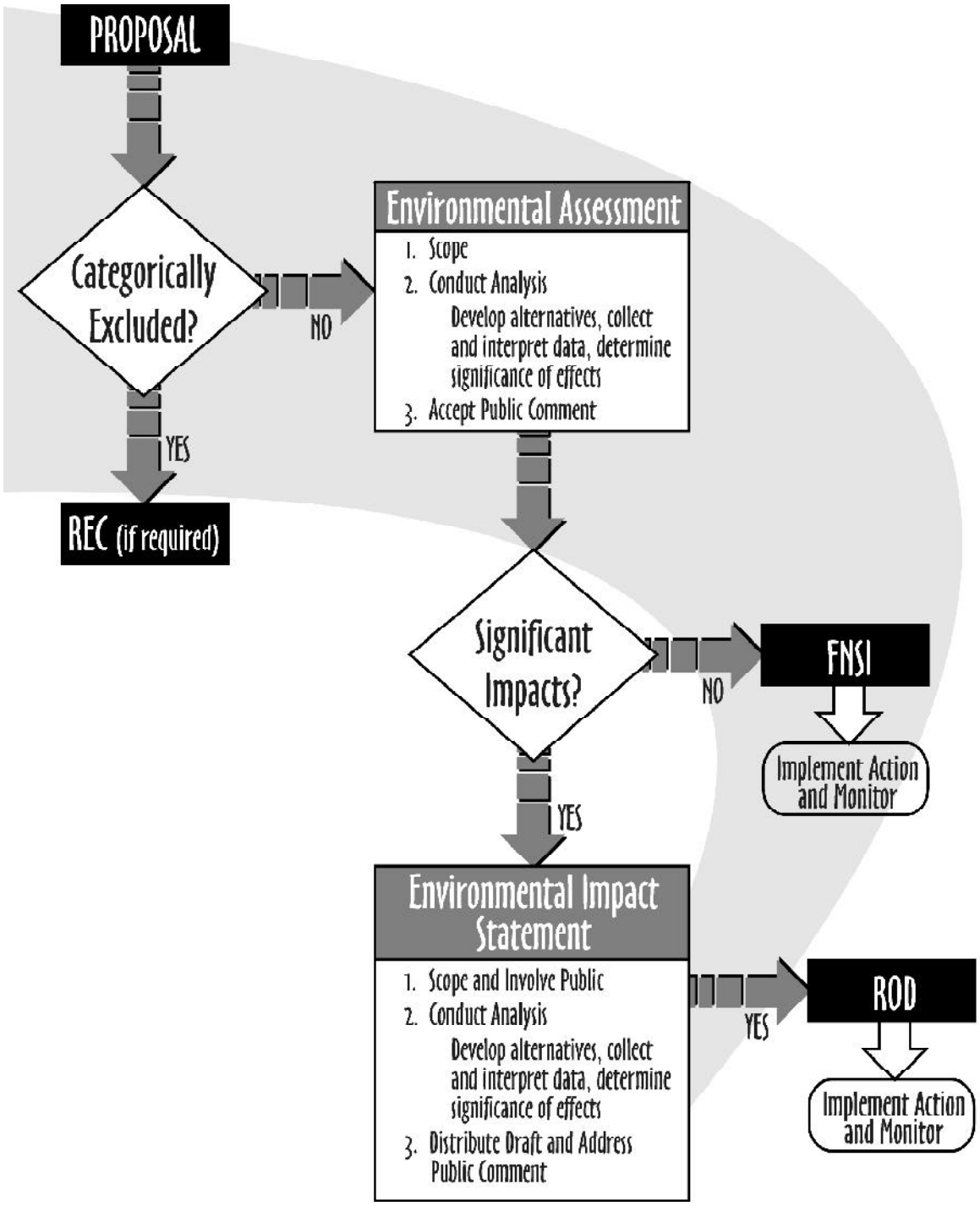
- Monitor proposed actions and ensure that appropriate environmental documentation is prepared.
- Consider environmental impacts of alternatives before making a decision.
- Ensure adequate implementation of adopted mitigation measures.
- Provide the public and interested agencies with adequate opportunity to participate in the planning process and environmental analysis.

NATIONAL ENVIRONMENTAL POLICY ACT (1969) - NEPA IMPLEMENTATION

The Law: "to declare a national policy which will encourage productive and enjoyable harmony between man and his environment" (42 U. S. C. Section 4321).

NEPA is the national charter encouraging enhancement and protection of the environment. It requires federal agencies to use systematic and interdisciplinary means to consider the environment when authorizing, proposing, undertaking, or funding projects, operations, or activities within the United States. NEPA also establishes a process for soliciting public comment and documenting consideration of the environment prior to making final decisions. Executive Order 12114 establishes procedures for consideration, by federal agencies, of the environmental effects of major federal actions outside the United States.

The NEPA process is depicted below.



Many Army actions including but not limited to construction, training; land transactions; reorganizations; developing, testing, and fielding new equipment; implementation of management plans; and stationing are subject to NEPA requirements. The nature and scale of a proposed action, public concern, and existing or potential environmental effects all influence the scope of consideration required.

There are three essential degrees of environmental consideration requiring documentation for any major action with environmental impacts ranging from none to significant. AR 200-2 includes information on formats for documentation.

A **RECORD OF ENVIRONMENTAL CONSIDERATION (REC)** is used most often at the installation level. This brief document describes a proposed action and explains why further environmental analysis is not needed. It is used for projects that NEPA does not cover or that existing documentation addresses. RECs are also prepared when a project corresponds to a categorical exclusion (CX). CXs are categories of activities previously evaluated and determined, in the absence of exceptional circumstances, not to significantly impact the environment. The CX is a decision tool intended to reduce paperwork and to eliminate unnecessary analysis. The Army's list of CXs is found in an Appendix to AR 200-2.

An **ENVIRONMENTAL ASSESSMENT (EA)** is required for a proposed action that may affect the environment. An EA concisely provides enough evidence and analysis of effects and alternatives for the public and decision-makers to determine whether a proposed action will significantly impact the environment. A Finding of No Significant Impact (FNSI) accompanies an EA when a proposed action' s impacts to the environment will be less than significant. When an EA documents expected significant impacts from a proposed action, a Notice of Intent (NOI) to develop an Environmental Impact Statement (EIS) may be the next documentation requirement.

An **ENVIRONMENTAL IMPACT STATEMENT (EIS)** ensures early consideration of the environment in decision-making on proposed activities that may significantly impact the environment. The EIS must contain a fair and concise discussion of all significant environmental impacts and alternatives, including a "no action" alternative, for action and mitigation for any proposed major action. The process for developing an EIS requires greater opportunities for public participation. A Record of Decision (ROD) explaining why the decision-maker chose a certain course of action and mitigation is the decision document associated with the final EIS.

"NEPA says the federal government will promote the general welfare; create and maintain conditions under which man and nature can exist in productive harmony; and fulfill the social, economic, and other requirements of present and future generations of Americans."

CURRENT REGULATIONS

CURRENT REGULATIONS

Army Regulation 200-2, Environmental Effects of Army Actions, is the Army's implementing regulation for NEPA.

Responsibility of issuing and implementing NEPA regulations belongs to the Council on Environmental Quality (CEQ).

REFERENCES

REFERENCES

National Environmental Policy Act (NEPA), 42 USC 4331 *et seq.*

AR 200-2, Environmental Effects of Army Actions.

40 CFR (Code of Federal Regulations) Parts 1500-1508, Council on Environmental Quality Regulations.

Memorandum from the General Counsel, Council on Environmental Quality, Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18026 (1981), March 16, 1981.

Considering Cumulative Effects: Under the National Environmental Policy Act, Council on Environmental Quality, Executive Office of the President, January 1997.

THE NATIONAL ENVIRONMENTAL POLICY ACT, A Study of Its Effectiveness After Twenty-five Years, Council on Environmental Quality, Executive Office of the President, January 1997.

RANGES AND MUNITIONS PROGRAMS

THE ARMY'S PROGRAM OBJECTIVES

OBJECTIVES

- Evaluate and improve environmental munitions management over the munitions lifecycle
- Develop range environmental management strategies
- Develop model range management plans
- Identify compliance and technology requirements to meet range sustainability

COMMANDER'S ROLE

COMMANDER'S ROLE

- Stay aware evolving range and munitions' initiatives and regulations that may impact your mission.
- Keep HQDA advised, through your chain of command, of your changing munitions- and ranges-related sustainment, environmental compliance and technology requirements.

RANGES & MUNITIONS

From a DoD-wide perspective, the Operational and Environmental Executive Steering Committee for Munitions (OEESCM) is the body that develops overarching DoD policies, positions, and action plans related to the lifecycle management of munitions, and that support readiness by balancing operational needs, explosives safety, and environmental stewardship throughout the acquisition, management, use, and disposition (recycle, treat, or dispose) of munitions. OEESCM's priority is to bring the military's operational community and environmental managers together to address range-management issues and munitions use. To this end, the committee is committed to addressing environmental implications related to readiness and training and the lifecycle management of munitions with full consideration of explosives safety.

The OEESCM's charter directed that munitions issues should be addressed using a life cycle approach. One of the committee's first tasks was to define the munitions life cycle. The committee then formed subcommittees to define the issues and to develop improvement initiatives in each phase of the cycle. The munitions life cycle consists of the following phases (the corresponding OEESCM subcommittees are shown in parentheses):

- **Acquisition** and production of munitions, including conceptual design and any associated or other research and development activities **(Acquisition Subcommittee)**;
- **Stockpile management**, including storage, transportation, and surveillance testing, and sale or demilitarization of excess and obsolete munitions (including resource recovery and recycling of munitions, and treatment and disposal of waste munitions) **(Stockpile**

Management Subcommittee). Initially, the OEESCM formed a Demilitarization Subcommittee to address the demilitarization issues; however, this subcommittee was later integrated with the Stockpile Management Subcommittee;

Use, including munitions use in training, testing, or military operations, and the overall management of active and inactive test and training ranges **(Range and Munitions Use Subcommittee)**;

Demilitarization, including resource recovery and recycling of munitions, treatment and disposal of waste munitions (the original **Demilitarization Subcommittee** was later disestablished and integrated with the **Stockpile Management Subcommittee**); and

Response(s) or response action(s), to address UXO, waste munitions or munitions constituents stemming from the use of munitions on current and former DoD properties, except at operational ranges (whether active or inactive ranges). This includes, but is not restricted to **Closed, Transferred or Transferring Ranges. (Range Response Subcommittee; Range and Munitions Use Subcommittee for Operational Ranges—both Active and Inactive).**

Stakeholder involvement. A "cross-cutting" subcommittee, the Stakeholder Involvement Subcommittee, was created to provide both non-DoD stakeholders access to the OEESCM and a means for the OEESCM to communitcate with non-DoD stakeholders. The OEESCM considers stakeholder involvement to be a key component in the formulation of a viable action plan that supports both the DoD mission and the needs of regulators and the public.

A wide number of regulations, policies, and initiatives have recently increased the interplay of environmental management practices as they relate to ranges and the use of munitions on those ranges. Inattention to the results could spell decreased readiness and loss of training and operational assets. To help understand the issues and requirements it is useful to divide the ranges (or operations) into two categories: (1) Active/Inactive Ranges and (2) Munitions Response.

ACTIVE/INACTIVE

Range XXI

The Range XXI Program is a coordinated group of projects and initiatives undertaken to support continued operations on U.S. Army Test and Training Ranges (including Maneuver Areas). The Range XXI Program is structured into four Target Areas (Small Arms Ranges; Maneuver Areas; Impact Areas; Testing Ranges). In order for the program to attain the stated goals and objectives, widespread cooperation amongst Department of the Army (DA) components and installations is an essential element of this program.

Munitions Rule (MR)

Environmental Protection Agency (EPA) in consultation with DoD developed an amendment to the Resource Conservation and Recovery Act (RCRA) to address regulations that identify when conventional and chemical military munitions become solid waste subject to RCRA. The regulation,

Military Munitions Rule, was finalized on 12 February 1997 and provides for the safe handling, storage, transportaion and disposal of waste military munitions. The DA assumed a lead role for the DoD, actively participating in congressional hearings, working with the EPA, states, Native American tribes, and environmental groups up to the promulgation of the MR by EPA. The Army is aware that environmental management of munitions is a contributing factor tin the ability to maintain a continued high state of operational readiness. The scope of environmental munitions management goes beyond the traditional environmental paradigms of compliance, conservation, restoration, and pollution prevention.

The Army has implemented several initiatives to support its on-going effort to better evaluate and improve environmental munitions management over the munitions lifecycle. Below are listed some of the key initiatives.

- Munitions Rule Compliance is based upon the Army Improvement Plan for Military Munitions Rule Implementation. Critical elements of the Plan include development and implementation of policy and regulatory guidance, provisions for training and information sharing, as well as compliance monitoring and continuous improvement.
- The Demilitarization Program Compliance area focuses on the Open Burning/Open Detonation (OB/OD) Operations. This initiative provides optimization of OB/OD Units, management strategies and protocols for site-specific technical baselines, management decision documents to determine the need for OB/OD Units, and technical closure guidance documents.
- Range Environmental Management Compliance emphasizes developing range environmental management strategies, developing model plans for range management, and identifying compliance and technology requirements to meet range sustainability objectives.

MUNITIONS RESPONSE

The Department of Defense is working on a directive that will establish policy for evaluating and responding to military munitions, including unexploded ordnance (UXO) and munitions constituents. This directive will assign responsibilities for the development and implementation of a munitions response program that addresses explosives safety and reduces the risk to human health and the environment from UXO and munitions constituents.

Emergency responses for military munitions, including UXO, are executed according to the Explosive Ordnance Disposal Policy (AR 75-15).

Munitions response questions should be directed to Office of the Director of Environmental Programs (ODEP) at (703) 693-0078.

ENVIRONMENTAL NOISE PROGRAM

Because the Noise Control Act of 1972 exempts noises from military weapons or equipment designated for combat use, DoD established the Installation Noise Management Program (INMP) to work with local communities on controlling land uses around military installations.

OBJECTIVES

THE ARMY'S PROGRAM OBJECTIVES

- Assess the environmental impact of noise to be produced by proposed actions.
- Comply with federal environmental noise regulations.
- Keep the installation mission compatible with local land uses through an effective INMP.
- Assess the effects of both on-post and off-post noise sources.
- Minimize environmental noise impacts through engineering, operational controls, siting, and procurement.
- Reduce interior noise levels through architectural and engineering controls.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Develop noise zone maps for the installation's current and future peacetime activities.
- Conduct initial and follow-up INMP studies when necessary.
- Support local and state agencies in developing land-use plans.
- Identify sources of noise and budget resources to lessen their impact.
- Maintain efficient, community-friendly noise complaint procedures. Activate an INMP committee.

ENVIRONMENTAL NOISE

Noise is the phenomenon of sound waves moving through air. Army generated noise may affect the health and readiness of Army personnel. Off-post civilians also may be affected in their homes and places of work. Intensity of sound is commonly thought of as loudness and is measured in units called decibels (Db). A zero on the decibel scale represents the lowest limit of human audible perception; the level of normal conversation is about 60 Db. The Db scale is logarithmic, which implies that as the Db level of sound increases by 10 units, the intensity or energy of the sound increases by a factor of 10. For instance, a Db value of 70 represents 10 times the energy of 60 Db.

CURRENT REGULATIONS

CURRENT REGULATIONS

In 1970, Congress passed the **Noise Pollution and Abatement Act,** which was chiefly responsible for investigating the effects of environmental noise on public health.

The **Noise Control Act of 1972** set the goal of protecting all Americans from noise that jeopardizes their health and welfare. This legislation enables the Environmental Protection Agency (EPA) to establish noise standards, and to regulate noise emissions from commercial products such as transportation and construction equipment. Individual states developed their own noise regulations under this 1972 act.

The **Quiet Communities Act of 197**8, popularly known as the "Boom-Box Law," amended the Noise Control Act by providing state and local governments with funds to promote the development of noise control programs on a local level as long as the programs are consistent with federal regulations. Many state and local governments have developed environmental noise regulations under this act. These noise regulations and standards came about for quality-of-life reasons, rather than direct threats to human health or hearing loss that the Occupational Safety and Health Administration (OSHA) covers for the workplace. The Surgeon General of the Army has set a noise standard for occupational exposure of 85 Db (A scale) for 8 hours (time weighted average).

REFERENCES

REFERENCES

AR 200-1, Environmental Protection and Enhancement, February 1997.

Technical Manual (TM) 5-803-2, Environmental Protection: Planning in the Noise Environment.

Regulations concerning noise abatement programs are contained in Title 40 CFR (Code of Federal Regulations) Parts 200 through 211.

For general information about noise pollution:

U.S. Army Logistics Management College (ALMC), Workbook for Managers's Environmental Course.

EPA Brochure, Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety, March 1974.

Federal Interagency Committee on Urban Noise, Guidelines for Considering Noise in Land Use Planning and Control, June 1980.

Planning and Management Consultants, Ltd., Examination of Noise Management Approaches in the United States, 1988.

U.S. Army Corps of Engineers, Institute for Water Resources, Report No. IWR-88-R-8.

REAL PROPERTY TRANSACTIONS PROGRAM

OBJECTIVES

- Document the environmental status of all real property transactions at the time of the transaction.
- Minimize the liability of the government (and individuals) in any real property transaction.
- Adequately restore any contaminated real property.

THE ARMY'S PROGRAM OBJECTIVES

COMMANDER'S ROLE

- Ensure all real property transactions comply with Title 42 USC 9620 (h), Public Law 102-426 (CERFA), AR 200-1, AR 405-80, AR 405-90, and DA PAM 200-1.
- Verify compliance with NEPA and AR 200-2 in all real property transactions.
- Conduct and process an EBS and subsequent FOST/FOSL for each real property transaction.

COMMANDER'S ROLE

REAL PROPERTY TRANSACTIONS

Transactions of Army real property include sale, leasing arrangements, temporary tenancy, grants, transfers and exchanges. Property transfers have gained significance in recent years for both private industry and governmental agencies at all levels. Numerous instances of unknowing acceptance of contaminated property have raised serious legal and liability issues. In this light, the Army recently revised the regulations governing real property transactions to institute requirements to prevent environmental contamination, to minimize the potential for personal and Army liability, and to ensure adequate environmental restoration if needed. The environmental restoration portion of the Base Realignment and Closure (BRAC) program was established to help identify, investigate, and remediate contamination on installations identified for sale under the auspices of the Base Closure and Realignment Commission Report of December 1988 and subsequent commissions, as authorized by the Base Closure Act of 1990. Real property transactions go beyond base closure to include leasing arrangements and transfer of inactive excess Army properties.

The Installation Commander/Army is responsible for compliance with and final decisions regarding CERCLA and NEPA.

The process consists of the following environmental restoration phases:

ENVIRONMENTAL BASELINE SURVEY — This study of the environmental conditions of Army-controlled properties focuses on hazardous substances or other regulated hazards. It includes former Enhanced Preliminary Assessment and Community Environmental Response Facilitation Act (CERFA) requirements.

ENVIRONMENTAL INVESTIGATION — These tools, such as the remedial investigation/ feasibility study (RI/FS) and the RCRA Facility Investigation (RFI), determine the nature and extent of contamination and recommend the best strategy for remediation or cleanup and are conducted under the active Installation Restoration Program or the BRAC Environmental Restoration Program.

REMEDIAL ACTION (RA) — This is the remediation necessary before property transfer.

FINDING OF SUITABILITY TO LEASE/TRANSFER/EARLY TRANSFER (FOSL, FOST, FOSET) — These documents are developed to determine if property is environmentally suitable for transfer.

ENVIRONMENTAL CONDITION OF PROPERTY — This is a document similar to a FOST, used to determine of property is environmentally suitable for transfer to another federal agency.

CURRENT REGULATIONS

CURRENT REGULATIONS

Several regulations and memos describe environmental responsibilities during real property transactions, including: AR 200-1, Chapter 15-6; AR 385-64, Chapter 12; AR 405-10 (acquisitions); AR 405-80 (outgrants); AR 405-90 (disposals); DoD Interim Final Guidance, "Lead-Based Paint Guidelines for Disposal of Department of Defense Residential Real Property - A Field Guide," December 1999; Memorandum, Subject: Guidance for Lead-Based Paint, Hazard Management During Transfer of Army Real Property, 28 March 2000.

Title 42 USC (United States Code) 9620 (h) and Public Law 102-426, CERFA, address requirements for reporting hazardous substance activity when selling or transferring federal real property. In addition, The DoD Field Guide and Army Implementing Guidance provide guidance for preparing appropriate documentation for the Environmental Baseline Survey (EBS), Finding of Suitability to Transfer (FOST), and Finding of Suitability to Lease (FOSL). DA PAM 200-1 also contains guidance on documentation.

These regulations set the procedures for conducting and processing an EBS (which replaced the Preliminary Assessment Survey) and subsequent FOSTs for sales divesting title, transfers of jurisdiction, and permits, or FOSLs for outgrants with the exception of licenses and minor easements. The purpose of these requirements is to protect both parties involved in real property transactions and to make sure any contaminated property is adequately restored.

Legislation has been enacted to accelerate property transfer. CERFA outlines the process for identifying uncontaminated property. Parcels regulators agree are uncontaminated (under CERFA definitions) are considered to be available for immediate reuse or transfer.

Section 331 of the Fiscal Year 1997 Defense Authorization Act expanded the CERFA definition of "uncontaminated" to include property where storage of hazardous substance has taken place without incident of a spill or release. Section 334 of the same act amended Title 42 USC 9620(h) by allowing property to be transferred before full and successful operations of remedial actions. A commitment and schedule for cleanup is required along with governor or EPA administrator authorization for deferral of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) covenant (stating that all necessary cleanup actions have been taken).

REFERENCES

REFERENCES

AR 200-1 and DA PAM 200-1, Environmental Protection and Enhancement, February 1997.

AR 200-2, Environmental Effects of Army Actions, December 1988.

AR 385-64, Ammunition and Explosives Safety Standards, May 1988.

AR 405-10, Acquisition of Real Property and Interests Therein, May 1970.

AR 405-80, Granting Use of Real Estate, February 1979.

AR 405-90, Disposal of Real Estate, May 1985.

42 USC 9620 (h), Reporting Hazardous Substance Activity When Selling or Transferring Federal Real Property, April 1990.

Public Law 102-426, The Community Environmental Response Facilitation Act (CERFA), October 1992.

DoD, BRAC Cleanup Plan (BCP) Guidebook, Fall 1993.

DoD Interim Final Guidance, "Lead-Based Paint Guidelines for Disposal of Department of Defense Residential Real Property - A Field Guide," December 1999.

Memorandum, Subject: Guidance for Lead-Based Paint, Hazard Management During Transfer of Army Real Property, 28 March 2000.

Base Closure Act of 1990.

Public Law 100-526, Defense Authorization Amendments and Base Closure and Realignment Act, October 1988.

Fiscal Year 1997, Defense Authorization Act.

ENVIRONMENTAL REPORTING PROGRAM

THE ARMY'S PROGRAM OBJECTIVES

OBJECTIVES

- Accurately monitor and measure performance of environmental programs and projects
- Comply with reporting requirements
- Support and document and resourcing requirements
- Supply commanders and HQDA with information so they can make informed decisions that support readiness

COMMANDER'S ROLE

COMMANDER'S ROLE

- Provide trained and qualified personnel and equipment to meet reporting requirements.
- Verify that reporting requirements are accurately met.
- Regularly review environmental status as reflected in the reports.

ENVIRONMENTAL REPORTING

U.S. Army installations are required to report environmental status information to HQDA. In turn, this information supports decision-making at the installation, HQDA, DoD, and Congress.

RECURRING REPORTS

	FREQUENCY	DATE DATA IS DUE TO HQDA
EPR	Semi-Annual	15th May, 1st December
EQR	Quarterly	30th January (1st Quarter)
		30th April (2nd Quarter)
		30th July (3rd Quarter)
		30th October (4th Quarter)
ISR	Annually	June
DSERTS	Semi-Annual	15th April, 15th October
Forest Report	Annually	30th October
Pest Program Report	Annually	30th October
Archeology Report	Annually	30th October
TRI Report	Annually	1st July
RCRA 3016 Report	Biennially	30th January

For a general summary see Part I of this document. For technical information on specific reports, reporting requirements, and reporting systems information, go to the USAEC Web site at http://aec.army.mil/. Additional information on ISR Environment is also located at http://isr.pentagon.mil/.

ENVIRONMENTAL TECHNOLOGY PROGRAM

The Environmental Quality Technology (EQT) Program's mission is to provide guidance and direction to the Army's environmental community, focusing on science, technology and demonstration and validation work to satisfy user requirements. The EQT Program consists of a two-step process. First, Technology Teams identify, prioritize and justify technological solutions to existing Army high priority environmental requirements. Second, based on Department of the Army guidance, it acquires funding through the Army budget process.

EQT management oversight process is the result of a mandate by the Secretary of the Army to set priorities for needs, focus resources, and ensure cost efficient investment for technology maturation, transfer, and exploitation. The Army's EQT management process concentrates on the Army's research and development efforts. The top level of this process is the Environmental Technology Technical Council (ETTC) which is made up of senior Army leaders at the headquarters level. The ETTC is supported by the Environmental Technology Integrated Process Team, (ETIPT) and Pillar Technology Teams which represent each of the Army's environmental "pillars" (compliance, conservation, pollution prevention, and restoration).

The EQT process focuses environmental quality technology on user needs, supports efforts to provide a science base for the future, and integrates the efforts of environmental quality technology investigators to support the Army's environmental strategy. It supports investments in effective and efficient technological solutions to environmental challenges with the intent of reducing the Army's environmental operating costs in the future. The Army's investments in its EQT Program support America's Army for the 21st century.

THE ARMY'S PROGRAM OBJECTIVES

OBJECTIVES

- Achieve, through development and exploitation of technology, environmentally compatible installations and systems, that support readiness, training and sustainability.
- Implement and transfer the technology of cost-effective methods and processes to the field.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Identify your specific needs and relay them through your MACOM representatives.

ENVIRONMENTAL TECHNOLOGY

A primary conduit for installation commanders in bringing about environmentally compatible installations and systems is through involvement in the Army's Environmental Quality Technology (EQT) Program. At the heart of this program is the identification of technology needs from a user level. Commanders can directly influence the direction of research, development, evaluation, testing, and acquisition to meet their needs by relaying their specific needs through their respective MACOM representatives. In addition, many opportunities exist for implementation of cost-effective technologies and processes to the field through the EQT Program.

WATERSHED MANAGEMENT PROGRAM

OBJECTIVES

THE ARMY'S PROGRAM OBJECTIVES

- Reduce compliance/conservation requirements and violations by instituting an integrated watershed management program across Army programs.
- Assist installations in reducing pollution sources and impacts to surface and groundwater resources by integrating legal environmental requirements and providing low impact methods, measures, and practices for meeting these requirements.
- Improve drinking water quality for Army personnel by using source water assessment and protection as the means for avoiding contamination of drinking water sources.

COMMANDER'S ROLE

COMMANDER'S ROLE

Reduce environmental requirements by:

- Requesting the Installation Environmental Management Team (which should consist of managers from Compliance, Facilities, Conservation, Legal, ITAM, and Operations) to evaluate installation environmental requirements relating to surface and ground water resources.
- Requesting the Installation Environmental Management Team to develop an integrated strategy that:

  a) outlines the environmental requirements;

  b) establishes procedures for reviewing current and new facility projects, mission operations, and military training activities against these requirements;

  c) determines impacts and contamination of surface and ground water resources from these projects, operations, and training activities;

  d) develops and implements SOPs, practices, and procedures that eliminate, reduce, or avoid impacts and contamination of surface and ground water resources;
- Educating and involving installation personnel (civilian and military) in cleaning up and preventing contamination of water resource;.
- Involving PAO in all aspects of the strategy and program to promote installation efforts to the surrounding communities and regulators.

The Army watershed management program, begun in 1999, encompasses CWA and SDWA regulatory requirements aimed at improving watersheds and endeavors to integrate those requirements with P2, conservation, facility planning, ITAM, range rule, DERP, technology, and other environmental programs which do, or could potentially, impact water resources. This integration across Army programs will not only help to prevent duplication of effort, but could also reduce budget and installation compliance requirements.

Major CWA and SDWA subprograms that will be included in the Army Watershed Management program include:

1. Storm water NPDES permits: the National Pollutant Discharge Elimination System program. This is contained in CWA Section 402.
2. Other CWA activities: construction permits and other CWA 401 permits.
3. CWA Section 319: Non-point source pollution and associated requirements (specifically Total Maximum Daily Loads for pollutants) which are developed for water bodies that are not meeting their designated use or current water quality standard. This is contained in CWA Section 303(d), also CWA Section 305(b), the Index of Watershed Indicators developed by the states.
4. Water quality criteria developed for watersheds by EPA and state regulators.
5. Source Water Assessment/Protection for drinking water (surface, ground waters and Sole Source Aquifer program).
6. Integration with the SPCC: Spill Prevention, Control, and Countermeasure Plans: Section 311 of the CWA (spill response), the Oil Pollution Act and CWA regulations 40CFR 112.7 require plans be developed and maintained to address oil discharges.
7. Integration with CWA wastewater program (specifically effluent guidelines, sludge management, wastewater treatment system assessments, and privatization).
8. Integration with SDWA program (specifically Maximum Contaminant Levels/Consumer Confidence Report requirements, treatment system assessments, Underground Injection Control program, and privatization).
9. Integration with conservation (such as SIKES ACT & ESA), Cultural, Restoration, ITAM, EPCRA and other appropriate compliance programs.

Watershed management has been known by other names at installations, such as water resource management, total water quality management, and/or integrated as part of an ecosystem management program under conservation. In the past, the Army managed water resource policy and guidance under various Army components, pillars, and divisions.

Since 1995, CWA and SDWA regulations have grown at an exponential rate. This growth has sparked public interest, media reports, and requests for access to reporting records for drinking water and point/non-point discharges of wastewater. This in turn has spurred inquiries into military environmental management practices and has placed demands on DoD to decrease military operations and activities on federal lands. Along with the increase in water regulations, EPA has developed and implemented a number of water initiatives/strategies that are aimed at providing an impetus for meeting environmental requirements through government and public partnerships. The goal of these initiatives and strategies are to encourage the management of water resources through the implementation of a watershed management program.

CURRENT REGULATIONS

CURRENT REGULATIONS

Four new rules promulgated in 1999 and 2000 are providing the compliance tool for encouraging water management by watershed. These rules will impact installation discharge permits, construction projects, and activities on or near impaired water bodies. These rules include: the Clean Water Act (CWA) Total Maximum Daily Load (TMDL) rule, the CWA Storm Water Phase II rule, the Safe Drinking Water Act (SDWA) Underground Injection Control rule (UIC) and the SDWA Source Water Assessment and Protection rule (SWAP). The TMDL and SWAP rules are primarily requirements for states to implement. However, this implementation by the states will impact installation permits, environmental programs, water/wastewater treatment systems, military activities, and civilian operations.

REFERENCES

REFERENCES

In general the laws and regulations that provide legal drivers that address watershed management and water resources include:

LAWS

- Clean Water Act, also known as the Federal Water Pollution Control Act of 1972 (PL) 92-500 (Amended 1977 and 1987)
- Oil Pollution Act of 1990 (PL) 101-380
- Coastal Zone Management Act
- The National Estuary Program (NEP) (addresses point and non-point discharges)
- Safe Drinking Water Act of 1974 (PL) 93-523 (Amended 1986 and 1996)
- State Water Laws

REGULATIONS

- CWA: 40 CFR 122-126, 400-499, 501 and 505 (and others)
- SDWA: 40 CFR 141-149
- AR 200-1, Chapter 2

CONSERVATION

CULTURAL RESOURCES PROGRAM

THE ARMY'S PROGRAM OBJECTIVES

OBJECTIVES

- Develop an Integrated Cultural Resources Management Plan (ICRMP) to locate, inventory, evaluate, and manage cultural resources.
- Complete planning level surveys.
- Follow professional standards for Army cultural resources personnel and projects.
- Enforce the protection of archeological resources under ARPA.
- Implement NAGPRA.
- Establish government-to-government relationships with federally recognized tribes.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Provide qualified preservation expertise to develop and implement the ICRMP.
- Be aware of the nature and extent of known cultural resources.
- Coordinate planning processes with interested Native American tribes.
- Verify that the ICRMP is coordinated with master plans and operations.
- Consider the effects of activities on historic and prehistoric resources.
- Plan cultural resources management activities in ways that avoid or minimize effects on operational activities.
- Work with Native Americans to protect access to sacred sites on installation lands (when such access has no significant impact on the mission).

CULTURAL RESOURCES

Many Army installations and facilities are rich in cultural resources such as archeological sites and historic buildings. These nonrenewable resources link us to our past and enhance quality of life.

Significant cultural resources must be identified and evaluated, and a process must be developed to manage these resources and maintain our heritage. AR 200-4 states Army policy on cultural resources management and guidance for the treatment of historic properties, including any significant prehistoric or historic district, site, building, structure, or object on Army-controlled property.

CURRENT REGULATIONS

CURRENT REGULATIONS

Congress passed the **National Historic Preservation Act (NHPA)** in 1966 to encourage federal agencies to administer historic and prehistoric resources in a spirit of stewardship and in harmony with the agencies' missions. The National Register of Historic Places establishes the criteria to evaluate the significance of districts, sites, buildings, structures, and objects in American history, architecture, engineering, archeology, and culture. "Historic properties" are listed in or eligible for listing in the National Register.

Section 110 of the NHPA requires federal agencies to develop a program to locate, identify, evaluate, and nominate for listing in the National Register historic properties on federal lands. In addition, Section 106 of the NHPA requires that all federal land managers consider, and resolve, the effects of federal undertakings on historic properties, in consultation with the Advisory Council on Historic Preservation, the State Historic Preservation Officer, or Tribal Historic Preservation Officer of federally recognized Indian tribes or Native Hawaiian organizations that may attach religious and cultural significance to a historic property, as set forth by Title 36 CFR (Code of Federal Regulations) Part 800, Protection of Historic Properties. The Advisory Council on Historic Preservation (ACHP) must be notified of all adverse effects to historic properties, and must be invited to participate in consultation when a National Historic Landmark is adversely affected or when a programmatic agreement will be prepared. Section III requires consideration of alternative uses before demolition of historic properties. Failure to comply with these procedures can result in a finding of foreclosure by the ACHP, or with litigation, potentially forcing the land manager to stop the action or activities.

The **Archeological Resources Protection Act of 1979 (ARPA)** stipulates that anyone (except federal employees working for the Installation Commander) disturbing or excavating archeological resources on federal lands must have a permit or be subject to civil or criminal penalties. ARPA permit requests should be directed to the local U.S. Army Corps of Engineers (USACE) district engineer. Installation law enforcement personnel should be aware of archeological resources that need protection and should monitor these sites regularly.

The **Native American Graves Protection and Repatriation Act of 1990 (NAGPRA)** imposes several requirements on federal agencies.

Summary and inventory reports on archeological collections containing human remains and cultural items as defined by NAGPRA were required by 1995. This information should be distributed to culturally affiliated, federally recognized Native American tribes, Alaskan Native villages, and Native Hawaiian organizations. Federal agencies must respond expeditiously to requests for repatriation of NAGPRA materials by such Native American groups.

NAGPRA also requires consultation with tribes prior to excavation of Native American, Alaskan Native, or Native Hawaiian human remains or cultural items. Any inadvertent discovery of human remains or cultural items must be followed with notice to the affiliated tribe and responsible agency manager, and activity in the discovery areas must stop for 30 days while agency consults with such tribes.

The **American Indian Religious Freedom Act of 1978 (AIRFA)** protects Native American religious practices and access to sacred sites on federal lands, subject to reasonable safety and mission restrictions. **Executive Order 13007**, Indian Sacred Sites, requires installation commanders, to the extent practicable, to accommodate access to sacred sites by American Indian groups, and to avoid adversely affecting the physical integrity of such sites.

On April 29, 1994, President Clinton issued a memorandum to the heads of executive departments and agencies, directing them to "operate within a government-to-government relationship with federally recognized tribal governments" and to "consult, to the greatest extent practicable . . . with tribal governments prior to taking actions that affect federally recognized tribal governments." This government-to-government relationship imposes a burden on agencies to respectfully interact with tribal representatives as agents of a sovereign entity, rather than as members of the interested public. Agencies may be required to actively seek out tribal comment on federal agency actions that may affect the tribes, instead of relying on the standard public notice process. This may involve actions such as attending a tribal council meeting to describe the installation's planning process and escorting tribal elders onto the activity site.

REFERENCES

REFERENCES

AR 200-4, Cultural Resources Management, 1997.

National Environmental Policy Act (NEPA) sections 106, 110, and 111.

Executive Order 13007, Indian Sacred Sites. Title 36 CFR Part 60, National Register of Historic Places.

Title 36 CFR Part 800, Protection of Historic Properties (1999).

The Section 110 Guidelines: Guidelines for Federal Agency Responsibilities under Section 110 of the National Historic Preservation Act (53 FR 4727-4746).

Title 48 CFR Sections 44716-42, The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.

National Park Service, The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings, 1983.

Title 36 CFR Part 800: Protection of Historic Properties (1999).

Title 43 CFR Part 7 (32 CFR 229), Protection of Archeological Resources.

Title 36 CFR Part 79, Curation of Federally Owned and Administered Archeological Collections.

25 USC (United States Code) 3001 *et seq*., Public Law 101-60, Native American Grave Protection and Repatriation Act (NAGPRA) of 1990.

Public Law 95-341, 42 USC 1996, as amended by Public Law 103-344, American Indian Religious Freedom Act.

16 USC 470aa-470ll, Archeological Resources Protection Act (ARPA) of 1979.

Memorandum, Government-to-Government Relations with Native American Tribal Governments, 59 Fed. Reg. 22951, May 4, 1994.

16 USC 470-470w-6, Public Law 89-665, National Historic Preservation Act, as amended by Public Law 96-515, Title XL of 102-575.

FISH AND WILDLIFE MANAGEMENT PROGRAM

The Army's Fish and Wildlife Program includes:

- Fisheries management
- Management of game and nongame species
- Urban wildlife management
- Fish and game law enforcement
- Control of problem animals

The program applies to all Army commands and personnel, and applies to Army installations on United States soil that contain areas suitable for conservation and management of fish and wildlife resources. Program emphasis is placed on the maintenance and restoration of habitat favorable to indigenous species.

THE ARMY'S PROGRAM OBJECTIVES

OBJECTIVES

- Maintain and enhance fish and wildlife resources in a manner consistent with both accepted scientific practices and military mission requirements.
- Improve natural surroundings for personnel living and working on the installation.
- Enhance public relations and recreational opportunities and stimulate community support for the military presence.
- Comply with all state and federal laws that pertain to the management of fish and wildlife resources.
- Recreational hunting and fishing as part of installations' morale, welfare and recreation program, Fish and Wildlife Conservation Fund (21x509S).

COMMANDER'S ROLE

COMMANDER'S ROLE

- Complete and maintain planning level surveys of natural resources occurring on the installation.
- Establish an optimum level of natural resource management and law enforcement professional staff.
- Prepare, implement, and update (no less often than every five years) an Integrated Natural Resources Management Plan (INRMP), in coordination with the appropriate state and federal fish and wildlife conservation agencies.
- Program funds to effectively develop and implement the INRMP.
- Coordinate with the U.S. Fish and Wildlife Service before the intentional taking of migratory birds.
- Establish a program to enforce fish and wildlife laws, and make sure all hunting, fishing, and trapping regulations are followed.

CURRENT REGULATIONS

The **Sikes Act ,** amended in 1997 as the Sikes Act Improvement Act, requires the Secretary of Defense to carry out a program for planning, managing, maintaining and coordinating fish and wildlife (including game) resources, and the conservation and rehabilitation of such resources. Each installation commander with fish and wildlife resources is required to develop "through coordination and concurrence of the Department of Interior (DOI) and the applicable state fish and game agency" and implement an Integrated Natural Resources Management Plan. The Sikes Act authorizes the installation commander to sell hunting and fishing permits, and the funds shall be used for conservation purposes on the installation on which they are collected. The installation commander shall manage fish and game resources to provide sustained multipurpose uses to an extent consistent with the military mission.

The **Migratory Bird Treaty Act (MBTA)** is the federal law enforcing international conventions for the protection of migratory birds. It provides protection for essentially all species of birds, except for the rock dove (pigeon), house sparrow and European starling, by requiring permits prior to intentional take of listed species and civil and criminal penalties for failure to comply.

REFERENCES

REFERENCES

AR 200-3, Natural Resources - Land, Forest and Wildlife Management, February 1995.

DoD Instruction 4715.3, Natural Resources Management Programs, May 1996.

Title 16 USC (United States Code) Section 670, Conservation on Military Installations (Sikes Act), as amended.

Title 16 USC Section 1531, Endangered Species Act of 1973, as amended, October 1988.

Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, 11 Jan 2001

Executive order 1292, Recreational Fisheries, 2 June 1995

Memorandum, DAIM-ED-N, Army Policy Guidance on Migratory Bird Treaty Act,

12 Aug 2001.

FOREST MANAGEMENT PROGRAM

THE ARMY'S FOREST VALUES OBJECTIVES

- Supporting the readiness mission
- Maintaining ecosystem integrity
- Recognizes potential environmental and economic benefits of carbon sequestration
- Optimizing the forest resourceand its associated products and benefits

THE ARMY'S PROGRAM OBJECTIVES

THE ARMY'S FOREST MANAGEMENT OBJECTIVES

- Manage the landscape to fit mission needs
- Support conservation compliance
- Execute natural resources stewardship

COMMANDER'S ROLE

- Support mission operations and stewardship requirements using the installation's Forestry Program.
- Establish optimum staffing with the appropriately trained personnel.

COMMANDER'S ROLE

FOREST MANAGEMENT

The Army manages its land and vegetation, including forests, to train soldiers, support the military mission, and fulfill its role as a responsible steward of public land. Benefits of an ecologically sound forest management program include maintenance of forest health, biodiversity, natural beauty, recreation, improved wildlife habitat, and protection of watersheds, cultural resources, and endangered species.

CURRENT REGULATIONS

CURRENT REGULATIONS

Congress provided authority for the military departments to retain receipts from sales of forest products that otherwise would be deposited in the miscellaneous receipts of the U.S. Treasury. The Army's timber-sale receipts from the general forest products account may be used only to reimburse the forest management program's support of mission and ecosystem management. Title 10 USC Section 2665(e) requires installations to pay 40% of net proceeds to the states in which the installations are located. These state entitlements are provided to benefit that state's schools and roads. Any surplus

forest product sale receipts are to be placed in a DoD Forestry Reserve Account and can be used to support installation forestry and other natural resources projects.

REFERENCES

REFERENCES

Title 10 USC Section 2665, The Military Construction Act of 1978.

DoD Instruction, 7000.14, Natural Resources Management Program, January 1992.

AR 200-3, Natural Resources — Land, Forest and Wildlife Management, February 1995.

Memorandum, DAIM-ED-N, 17 August 1999, Army Regulatory Guidance for Reimbursable Agricultural/Grazing and Forestry Programs.

PEST MANAGEMENT AND PESTICIDES PROGRAM

OBJECTIVES

THE ARMY'S PROGRAM OBJECTIVES

- Develop and administer safe and effective pest management programs at each installation by using IPM techniques to reduce risks of environmental damage from pesticide applications.
- Promote command training and contingency goals and objectives.
- Protect real estate and natural and cultural resources from pest-related damage.
- Limit health risks from injury and disease from pests and the diseases they carry.
- Reduce human health environmental risks from chemical pesticides.
- Prevent introduction or spread of medical and economic pests within areas occupied by United States forces.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Comply with applicable Federal, state, and local pesticide and pest management regulations.
- Ensure that adequate funds and staffing are provided to support installation pest management program requirements.
- Approve Installation Pest Management Plans and ensure that they are addressed by the installation master planning process and the National Environmental Policy Act (NEPA) requirements.
- Ensure the pest management requirements of major assigned units, tenants, and supported activities meet Army program requirements.
- Designate a qualified Installation Pest Management Coordinator as the primary staff proponent for the installation pest management program.

PEST MANAGEMENT AND PESTICIDES

A pest is any organism (such as an insect, rodent, bird, weed, fungus, or microorganism) that can injure or lower the well-being of people and their pets, damage property and natural resources, or otherwise threaten the ability of commanders to accomplish their missions.

Pesticides are substances or mixtures of substances that are used to destroy, repel, or otherwise prevent damage by pests. These substances are commonly named after the specific group of pest they are designed to control, such as insecticide, herbicide, fungicide, rodenticide, or plant growth regulator.

Pesticides often are toxic chemicals that must be stored and handled with care. Unlike many toxic chemicals, however, pesticides must be released into the environment to be effective, and

some degree of environmental exposure is unavoidable. Depending upon the properties and patterns of use, specific pesticides may contact or accumulate in the atmosphere, soil, surface water and groundwater, and untargeted plants and animals. Thus, it is important to use pesticides only in ways that prevent or minimize risks of unwanted environmental exposure.

Pesticides are also unique among potentially toxic chemicals in that their usefulness can be reduced or eliminated by resistance of targeted pests. This often happens when pesticides are applied inappropriately.

Modern pest-control strategies have abandoned wholesale use of pesticides in favor of more sophisticated approaches, in which pesticides are among several tools used to eliminate or reduce damage by pests. One approach, commonly known as Integrated Pest Management (IPM), demands full use of information about the biology of a target pest and its environment. It also calls upon engineering, cultural, genetic, and other disciplines for overall control. The Department of Defense (DoD) is committed to IPM as the best approach to control pests while meeting Presidential guidelines for reducing environmental risks from toxic chemicals.

CURRENT REGULATIONS

CURRENT REGULATIONS

The EPA regulates pesticides through its Office of Pesticide Programs (OPP). Two statutes are administered in this program: The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) of 1972, which established the registration procedures for pesticide products, and the Federal Food, Drug and Cosmetic Act (FFDCA), which governs pesticide residue levels in food and feed crops.

Under FIFRA, the EPA regulates the use of chemical pesticides and establishes training standards and procedures for personnel who handle these pesticides. The EPA has authorized DoD to specify training and certification requirements for personnel who apply pesticides on DoD property.

DoD also has entered into formal agreements with the EPA to support the goals and objectives of Executive Order 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements, through the Pesticide Environmental Stewardship Program, and has committed to reduce pesticide releases wherever possible.

DoD standards are generally more stringent than those of EPA and most state standards, for example, DoD requires detailed records of all pesticide operations at DoD facilities and that all personnel who apply commercial grade pesticides at DoD facilities be certified.

REFERENCES

REFERENCES

AR 200-1, Environmental Protection and Enhancement, February 1997.

AR 200-2, Environmental Effects of Army Actions, December 1988.

DoD Instruction 4150.7, DoD Pest Management Program, April 1996.

AR 40-5, Preventive Medicine, October 1990.

AR 200-5, "Pest Management," October 1999.

Federal regulations concerning pesticides are contained in Title 29 CFR Part 1910 (personal protective equipment), Title 40 CFR Parts 152-171 (pesticide labels, certification, and training), and Title 7 CFR Part 110 (recordkeeping).

THREATENED AND ENDANGERED SPECIES PROGRAM

OBJECTIVES

- Develop and implement programs to conserve state and federal threatened and endangered species and their critical habitats.

THE ARMY'S PROGRAM OBJECTIVES

COMMANDER'S ROLE

- Plan land use to avoid adverse effects on threatened and endangered species.
- Conduct installation-wide surveys to identify and document the locations of listed endangered species and candidates for listing, and their habitats.
- Perform biological assessments for major construction projects and other activities, such as military training, to assess the effects on listed species and their habitats.
- Work closely with the FWS and NMFS in planning installation activities and initiate formal consultation for activities that may affect listed species or critical habitats.
- Prepare Endangered Species Management Plans (ESMP's) to manage endangered species ensure that adequate funds and personnel are provided to carry them out, and integrate the ESMP with the Installation Natural Resources Management Plan (INRMP).
- Monitor installation compliance with Endangered Species Management Plans and progress toward conservation goals through internal and external assessments and annual review by the Environmental Quality Control Committee.

COMMANDER'S ROLE

THREATENED AND ENDANGERED SPECIES

The Endangered Species Act of 1973 (ESA) protects plant and animal species that have been determined, by the Secretary of the Interior (U.S. Fish and Wildlife Service) or the Secretary of Commerce (National Marine Fisheries Service), to be threatened or endangered. This determination is based solely on the best scientific data available. The ESA defines "endangered species" as those in danger of extinction throughout all or a significant portion of their range. "Threatened species" are those likely to become endangered in the foreseeable future. The list of endangered and threatened species (listed species) is published in the Federal Register.

Failure to comply with the ESA has resulted in severe disruptions to soldier training on several Army installations. This is the one area of environmental compliance that could most affect your ability to provide realistic field training for soldiers. Ranges have been closed and training exercises have been canceled at some Army installations for failure to comply with the consultation requirements of ESA and for not protecting listed species adequately.

The ESA requires federal agencies to carry out programs for the conservation of listed species. The ESA defines conservation as the use of all methods and procedures necessary to bring endangered or threatened species to the point at which ESA protection measures are no longer required.

The ESA also requires that federal agencies ensure that their actions are not likely to jeopardize the existence of endangered or threatened species, nor adversely modify critical habitat. The Army must formally consult with the National Marine Fisheries (NMFS) or the U.S. Fish and Wildlife Service (FWS) before taking any action that may affect, adversely or beneficially, a listed species or cause adverse modification of designated critical habitat. Joint FWS and NMFS regulations describe consultation procedures.

The ESA prohibits anyone from taking a listed fish and wildlife species unless permitted by the ESA. "Take" is broadly defined by the ESA to include most activities that harass or harm listed fish and wildlife species. Harm is further defined as an act that kills or injures species. Harm may include significant habitat modification or degradation when it impairs essential behavioral patterns (such as breeding, feeding, or sheltering). The Army obtains permits for "incidental take" through section 7: consultation process. Additionally, the ESA makes it unlawful to remove or to maliciously damage or destroy any listed plant in areas under federal jurisdiction.

States have their own lists of threatened and endangered species, which the Army should consider when planning land management activities.

On many installations ESA enforcement is a large part of a well-integrated natural resources management program. Further, failure to comply with the ESA may result in the disruption of soldier training or other Army mission activities. Army personnel who violate the ESA or its implementing regulations could face civil and criminal penalties. The law imposes penalties for both the knowing failure to take required action and the commission of prohibited acts.

CURRENT REGULATIONS

CURRENT REGULATIONS

The Endangered Species Act (ESA) of 1973, as amended.

REFERENCES

REFERENCES

AR 200-1, Environmental Protection and Enhancement, February 1997.

AR 200-3, Natural Resources - Land, Forest, and Wildlife Management, February 1995.

Joint FWS and NMFS regulations implementing the Endangered Species Act are contained in Title 50 CFR Part 402.

The lists of endangered and threatened wildlife and plants are contained in Title 50 CFR Parts 17.11 and 17.12, respectively; the designated critical habitats are listed in Title 50 CFR Parts 17.95 and 17.96.

WETLANDS PROGRAM

OBJECTIVES

- Avoid adverse impact to existing aquatic resources; offset unavoidable impacts.
- Strive to achieve no net loss of value or functions of existing wetlands.
- Achieve no overall net loss of wetlands on Army-controlled lands.
- Protect existing, rehabilitate degraded, restore former and create new wetlands.

THE ARMY'S PROGRAM OBJECTIVES

COMMANDER'S ROLE

- Inventory installation wetlands.
- Plan land use to avoid damage to wetlands.

COMMANDER'S ROLE

WETLANDS

"Wetlands" is the collective term for marshes, swamps, bogs, and similar areas located between open water and dry land. Wetlands are valuable natural resources that help improve water quality, reduce flood and storm damage, provide fish and wildlife habitat, and support hunting and fishing activities. Two broad categories of wetlands are recognized: coastal wetlands and inland wetlands. Coastal wetlands are found in areas of varying salinity and include unvegetated mud flats, sand flats, marshes, estuaries, and mangrove swamps. Inland wetlands are common on flood plains along rivers and streams, in isolated depressions surrounded by dry land, and along the margins of lakes and ponds. Additional general information about wetlands is available at http://www.epa.gov/OWOW/wetlands/.

CURRENT REGULATIONS

CURRENT REGULATIONS

All federal land management agencies are responsible for protecting wetland resources. The major federal wetlands regulations are jointly administered by the U.S. Army Corps of Engineers (USACE) and the Environmental Protection Agency (EPA). The **Clean Water Act (CWA)** established a permit program to regulate the discharge of dredged and fill material into waters of the United States, including most wetlands. The U.S. Fish and Wildlife Service (FWS) (http://www.fws.gov/) and the National Marine Fisheries Service (http://www.nmfs.noaa.gov/) have important advisory roles in the permit review process. Section 404 of the CWA (http://www.usace.army.mil/inet/functions/cw/cecwo/reg/sec404.htm) authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredged or fill material into waters of the United States. "Waters of the United States" is the broad term for wetlands, coastal and inland waters, lakes, rivers, streams, and prairie potholes. The terms dredged

or fill material includes return water from dredged material disposed on the upland and generally any material (such as rock, sand, or dirt) used to fill in wetlands during the construction of roadways, erosion protection, and site development.

USACE issues Section 404 permits under various forms of authorization. These include individual permits and general permits.

Individual permits require that a formal application be completed and submitted to USACE and the appropriate state agency. Once a complete application is received by USACE, the formal review process begins. USACE issues a public notice, evaluates the impacts of the project and all comments received, and negotiates necessary modifications to the project, if required. A permit decision document is then prepared and forwarded to the district or division engineer for signature.

General permits refer to regional permits and nationwide permits. Regional general permits and associated stipulations are issued, by district or division engineers on a regional basis, for those projects identified as being similar in nature and causing only minimal individual and cumulative environmental impacts. Nationwide permits are issued by the Chief of Engineers through publication in the Federal Register and, naturally, apply nationwide. The nationwide permits are found in Title 33 CFR (Code of Federal Regulations) Part 330. Contact your local USACE district or division for a listing of the regional general permits.

REFERENCES

REFERENCES

AR 200-1, Environmental Protection and Enhancement, February 1997.

AR 200-3, Natural Resources - Land, Forest and Wildlife Management, February 1995.

Executive Order 11990, Protection of Wetlands, May 1977.

EPA wetlands regulations in Title 40 CFR Part 230: Subpart E, Section 230.41 outline potential impacts of dredged and fill material on special aquatic sites, specifically wetlands.

The regulatory program for USACE is contained in Title 33 CFR Parts 320 through 330.

Army Corps of Engineers Wetlands Delineation Manual, 1987.

COMPLIANCE

AIR QUALITY MANAGEMENT PROGRAM

OBJECTIVES

THE ARMY'S PROGRAM OBJECTIVES

- Identify, inventory, and monitor air pollutant emissions and ambient air quality.
- Reduce pollutants to regulatory levels to protect health and reduce permit costs.
- Procure control equipment that meets regulatory standards.
- Ensure that design and operation of military equipment are in accordance with regulations.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Verify, identify, monitor, and maintain an up-to-date inventory of emission sources.
- Obtain permits and provide reports for emission sources as required by regulations.
- Participate in the air pollution regulatory development process.
- Implement low-cost pollution prevention systems, and discourage institutional resistance to change.
- Maintain programs to train air emissions management personnel.
- Conduct motor vehicle inspections and maintenance to ensure regulatory compliance.
- Implement pollution prevention measures that reduce environmental compliance costs.
- Ensure that Logistics and Public Works personnel collect material-use data required by the Title V permit.
- Confirm that installation environmental staff know state air-quality and emissions regulations.
- Notify their MACOM immediately whenever a Notice of Violation (NOV) is received.

AIR QUALITY MANAGEMENT

Good air quality contributes to Army readiness and quality of life by providing direct health and economic benefits to soldiers and civilians. A commander's influence and guidance may resolve issues that could impair readiness. Commanders have occasionally had to participate in negotiations

with regulators so that training could continue. In addition, the commander's authority may help overcome citizens' and regulators' concerns about air pollution from Army activities.

Particulate matter regulations, more than any other **Clean Air Act (CAA)** regulation, have interfered with training. Enforcement of these regulations has restricted smoke/obscurant emissions. Smoke/obscurant clouds are made up of particulate matter measuring less than 2.5 micrometers in aerodynamic diameter. Because of the large volume in which they are generated, fog oil clouds can cause violations of the particulate matter standards.

Installation air pollution emission sources include:

- Boilers that produce heat and steam
- Fueling operations, especially gasoline fueling
- Graphic arts
- Degreasing operations
- Vehicle and building painting operations
- Training activities, especially vehicle maneuver training
- Firing ranges, including firing points, explosions and controlled burns
- Waste disposal, such as incineration
- Dry-cleaning operations
- Emergency back-up generators

Commanders can implement programs, such as pollution prevention and automated data collection systems, which will reduce their installation's Clean Air Act compliance costs. Pollution prevention, or "P2," is the substitution of less polluting processes or materials. These new processes and materials pay for themselves by reducing material, energy, waste disposal, and environmental compliance costs.

SAMPLE COST SAVING P2 MEASURES

MEASURES*	ADVANTAGES
Low-solvent paint use	Decreases Clean Air Act compliance costs Reduces EPCRA emissions
Reduce heater usage by increasing building heater insulation and/or purchasing solar water heaters	Decrease energy costs Reduce boiler pollutant emissions Reduce CAA compliance costs
Stage I and II vapor control on gasoline dispensers	Reduces gasoline vapor emissions Large source of hazardous air pollutant emissions
Sputtering or vapor deposition metal plating	Reduces chromium emissions to air and water Reduces hazardous waste disposal costs

*Contact your Environmental Office for a list of P2 opportunities specific to your installation.

Improved data management can reduce both compliance costs and environmental fines assessed against your installation. The Clean Air Act requires installations to control, manage, reduce and track the volume of their air emissions. Inadequate data collection accounts for most CAA Notices of Violation.

It isn't necessary to spend tens of thousands of dollars to collect data required by the Clean Air Act. Implementation of the Hazardous Substance Management System (HSMS) is a cost-effective way to improve data gathering. HSMS, a 'cradle to grave' automated tracking system, is the DoD standard for tracking hazardous materials requisitioned, received, stored, issued, used, recycled, and hazardous waste disposed. It also maintains information on all processes that use hazardous materials or generate hazardous waste, calculates chemical release information, and generates all the required federal environmental reports.

CURRENT REGULATIONS

CURRENT REGULATIONS

The massive size and scope of the Clean Air Act Amendments of 1990 (CAAA-90) make clean air regulations among the most intrusive. The EPA and the states have only promulgated about half of the regulations required by these amendments.

The CAAA-90 legislation targets many operations found on Army facilities. Consequently, the Army faces significant increases in the cost of doing business. Major installation impacts come from Titles I (Attainment), III (Hazardous Air Pollutants), V (Permits), and VI (Stratospheric Ozone Protection). To a lesser extent, Titles II (Mobile Sources) and IV (Acid Rain) of the Clean Air Act also may affect Army operations.

TITLE I: AIR QUALITY - requires the EPA to establish programs to bring all ambient air into compliance with the National Ambient Air Quality Standards (NAAQS). These standards set the maximum allowable concentrations of ground-level ozone, carbon monoxide, sulfur dioxide, nitrogen oxides, inhalable particulate matter, and lead. The programs establish emissions control standards for areas of the country meeting the NAAQS, and other standards for areas failing to meet the NAAQS. Most of Title I is directed at controlling pollutant emissions which contribute to ground-level ozone formation, such as volatile organic compound (VOC) and nitrogen oxide emissions.

ARMY IMPACTS OF TITLE I

Military sources of volatile organic compounds (VOCs) typically affected by Title I include boilers, fuel storage and dispensing facilities, spray painting and coating lines, organic solvent degreasing operations, and dry cleaners.

Affected military nitrogen oxide (NOx) sources include combustion processes, such as open burning/open detonation (OB/OD) sites, engine test cells, various waste incinerators, and fossil-fuel-fired steam/hot water boilers.

Military inhalable particulate sources include smoke/obscurant training, boilers, OB/OD, and maneuver training.

Major requirements include:

- Controls on boiler emissions.
- Use of low-solvent chemical agent resistant coating.
- Restrictions on maneuver and smoke/obscurant training.

Nontactical fleet vehicles used in nonattainment areas must be included in Inspection and Maintenance (I & M) programs. Such programs generally have an annual inspection requirement that can be enforced through denial of vehicle registrations.

Army installations also may be required to implement a program to verify I&M participation for employees' privately owned vehicles.

New operations in nonattainment areas must demonstrate that they will not have a negative impact on the goals or purpose of the state implementation plan. New source permitting can be extremely burdensome regarless of location.

TITLE II: MOBILE SOURCES - regulates pollutant emissions from *nontactical* vehicle engines. It sets pollutant limits for motor vehicle exhaust emissions, and requires manufacturers to investigate feasibility of onboard canisters to control refueling emissions. Title II also compels automobile manufacturers to limit carbon monoxide, hydrocarbon, and NOx emissions by improving design standards. In cities with the worst ozone and carbon monoxide non-attainment, it requires reformulated and oxygenated gasoline, and in nonattainment areas, requires that a percentage of each nontactical vehicle fleet (such as GSA motor pools) be clean-fuel vehicles.

ARMY IMPACTS OF TITLE II

As of the 1998 model year, Army installations in affected nonattainment areas must begin to procure and use clean-fuel vehicles. Clean alternative fuels include methanol, ethanol, reformulated gasoline, natural gas, liquefied petroleum gas, and electricity.

The Army acquisition community works with EPA to identify engine systems that require exemptions as provided in the rules. These exemptions are important to engine logistics and maintenance capabilities.

TITLE III: Hazardous Air Pollutants - requires the EPA to write regulations reducing emissions of hazardous air pollutants (HAPs) to the nation's air. This title also establishes contingency planning for accidental releases of hazardous substances.

ARMY IMPACTS OF TITLE III

Affected HAP sources must modify processes or install control equipment to limit emissions and comply with maximum available control technology (MACT). The acqusition community can play an important role, through material and process specification, in HAP reduction.

Title III requirements impact most of the VOC sources listed under Title I.

Emission levels have to be verified in a manner acceptable to regulators and quantified by either continuous emission monitoring, stack sampling, or estimation using EPA-approved emission factors.

TITLE IV: ACID RAIN - primarily affects large electric utility companies with sulfur dioxide emissions, which are considered to be a major source of acid rain precursors.

ARMY IMPACTS OF TITLE IV

Because acid rain is a major environmental issue in the United States, Canada and several other regions around the world, it is an environmental security issue.

Acidification of lakes, destruction of forests, and increased weathering of exposed materials are some of the direct effects of these pollutants on Army installations. These can influence an installation's training lands, conservation programs, and overall readiness.

Electricity costs also may increase gradually over the next two decades.

TITLE V: PERMITS - under Title V, each installation meeting the EPA's definition of a major source must obtain a single permit covering all its regulated air emissions sources. Other than laboratories and administrative posts, most Army installations meet this definition.

THE TITLE V PERMIT MUST INCLUDE THE FOLLOWING INFORMATION:

- Results of a regulatory review that includes all federal, state, and local air emissions regulations, and a list of those that apply to the installation.
- A list of all regulated sources.
- A list showing the requirements of all regulations applying to these sources.
- A compliance plan describing how the installation will achieve and maintain compliance with all applicable air emissions regulations.
- A monitoring plan describing the monitoring and record-keeping through which the installation will verify compliance with all applicable regulations.

These permits have to be federally enforceable. This means that the permit requirements can be enforced by the EPA, state regulatory agencies, or private citizens. An Army installation violating a federally enforceable requirement is more likely to be caught and cited than if it were to violate a

state enforceable requirement.

ARMY IMPACTS OF TITLE V

Army installations must pay annual permit fees based on the level of air pollutants permitted.

Data collection required under Title V permits consumes more of an installation staff's time than any other Clean Air Act regulation.

Failure to comply with any aspect of the Compliance Plan or permit can be grounds for enforcement action. Violations must be self-reported.

TITLE VI: SRATOSPHERIC OZONE PROTECTION - bans the production of all ozone-depleting substances (ODS) after 2001, including chlorofluorocarbons (CFCs), halons, and other halogenated solvents. It also requires training for the technicians who work on machines that capture and recycle ozone-depleting chemicals (ODCs) from systems that use ODCs.

ARMY IMPACTS OF TITLE VI

Army installations eventually will have to replace systems such as air conditioners, chillers, fire suppression systems, and precision metal parts cleaning, that use these chemicals.

The Army operates a few systems, such as armored vehicle fire suppression systems, using ozone-depleting chemicals for which there are no suitable replacements.

The Army Acquisition Pollution Prevention Support Office (AAPPSO) is responsible for supplying essential systems with ozone-depleting chemicals.

TITLE VII: ENFORCEMENT - describes civil and criminal penalties for violations of air pollution control requirements. Some violations that were previously misdemeanors became felonies, with liability targeted at senior management rather than operators. Enforcement actions include high maximum fines and prison terms.

ARMY IMPACTS OF TITLE VII

Failure to comply with either administrative or substantive air quality requirements may be costly.

Administrative violations such as inaccurate or out-of-date permit data are also grounds for enforcement action.

Enforcement efforts are specifically directed at management to compel regulated entities to plan ahead and allocate appropriate resources.

Lack of hands-on involvement is no longer a valid defense for a violation.

STATE REGULATIONS

State agencies have a major role in managing air quality programs. State regulations applicable to installation activities are often more detailed and encompassing than federal regulations. Facets of state involvement in air pollution management include development of State Implementation Plans (SIPs), permitting of stationary sources, air toxins emissions regulations, and vehicle I & M programs.

REFERENCES

REFERENCES

For more extensive and most current sources of information go to http://aec.army.mil/ click on “Compliance” and go to “Clean Air Act Management.”

AR 200-1, Environmental Protection and Enhancement, February 1997.

AR 420-49, Facilities Engineering Utilities Services Guide, April 1997.

DoD Directive 6050.9, Chlorofluorocarbons (CFCs) and Halons, February 1989.

The Clean Air Act, 42 USC Section 7401, et. seq.

The Clean Air Act regulations are presented in Title 40 CFR, Parts 50-87.

AR 40-5, Preventive Medicine, August 1986.

USAEHA Report, Summary of the Clean Air Act Amendments of 1990, Titles I, II, III, V, VI, and VII, April 1991.

ASBESTOS PROGRAM

THE ARMY'S PROGRAM OBJECTIVES

OBJECTIVES

- Minimize environmental release and occupational and incidental exposures.
- Exclude asbestos from procurements and uses where asbestos-free substitutes exist.
- Handle, store, transport, and dispose of asbestos in compliance with regulations.
- Develop and maintain an inventory of all asbestos in Army structures and determine the potential for human exposure.
- Implement a program to minimize exposure in areas known to have asbestos until abatement is accomplished.
- Minimize occupational exposure to ensure regulatory compliance.
- Maintain a nonoccupational environment safe from exposure.
- Execute an asbestos management plan.
- Train personnel involved with asbestos activities in accordance with federal, state, and local laws and regulations.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Establish an installation asbestos management team, which prepares and executes the installation's asbestos management plan; and that meets quarterly or at least semi-annually.
- Confirm that asbestos surveys are performed and updated.
- Notify your MACOM whenever a Notice of Violation (NOV) is received.
- Make sure all NESHAP notification requirements are met before starting any demolition or renovation activities.
- Ensure that all personnel are either protected from or kept out of areas that have not been surveyed for asbestos.

ASBESTOS

Asbestos is the name for a group of natural minerals that separate into strong, fine, heat-resistant fibers. It has been used in a variety of forms for thermal, acoustical and decorative purposes, boiler and pipe insulation, and in construction materials and appliances.

When asbestos degrades into microscopic fibers it becomes a health hazard. This can happen when asbestos-containing materials are disturbed. Degraded or crumbled asbestos is known as

"friable" asbestos. Once emitted to the atmosphere, asbestos fibers can remain suspended in the air for long periods of time and, when inhaled, can easily lodge in body tissues. Asbestos fibers cause asbestosis, a chronic disease of the lungs which makes breathing progressively more difficult, and mesothelioma, a cancer of the chest and abdominal membranes. Other cancers, primarily of the digestive tract and lungs, also have been associated with exposure to asbestos.

CURRENT REGULATIONS

CURRENT REGULATIONS

Several federal agencies are charged with regulating asbestos products and wastes:

- The Occupational Safety and Health Administration (OSHA) sets limits for worker exposure on the job.
- The Consumer Product Safety Commission (CPSC) regulates asbestos in consumer products and has banned the use of asbestos in drywall patching compounds, ceramic logs, and clothing.
- The Environmental Protection Agency (EPA) regulates the management and disposal of asbestos-containing wastes and has set deadlines for elimination of asbestos in certain products such as water distribution pipes and building products.

Through National Emissions Standards for Hazardous Air Pollutants (NESHAP), the EPA requires pre-work notices and specific work practices to be used during demolition and renovation operations when asbestos materials are involved. In addition, the Asbestos Hazard Emergency Response Act, signed into law on October 22, 1986 (and last amended in November 1990), requires the EPA to study the risk to human health posed by asbestos in public and commercial buildings and the means to respond to any such risk. Buildings most likely to contain friable asbestos are those built or remodeled between 1945 and 1978.

The Hazardous Materials Transportation Act was amended in 1978 to regulate the transport of asbestos materials. These regulations are contained in 49 CFR (Code of Federal Regulations) Parts 172-177. Asbestos must be loaded, handled, and unloaded in a manner that minimizes occupational exposure to airborne asbestos.

All asbestos activities (renovation, abatement, removal, etc.) are governed by, and must be conducted in accordance with, 29 CFR 1926.1101 and 29 CFR 1910.1001 standards. However, contact your appropriate state and local agencies if your installation is removing or disposing of asbestos. Many states and local governments have enacted standards more stringent than the federal requirements for certifying asbestos workers and disposing of asbestos waste.

Since the main drivers for the Asbestos Program are not environmental, the Army is constantly reviewing the eligibility of these programs for environmental funding. However, regardless of what office performs the action, installations should ensure compliance.

REFERENCES

REFERENCES

AR 200-1, Environmental Protection and Enhancement February 1997.

AR 385-10, The Army Safety Program

AR 405-90, Disposal of Real Estate, May 1995.

Public Works Technical Bulletin (PWTB) 420-70-8, Installation Asbestos Program Management, 1997.

Medical Technical Bulletin (TBMED) 513, Guidelines for the Evaluation and Control of Asbestos Exposure, December 1986.

USAEHA, draft Technical Guide (TG) No. 157, Installation Asbestos Management Program Guidance.

Federal asbestos regulations are contained in Title 40 CFR Parts 61 and 763. The OSHA standard, which limits occupational exposure to asbestos, is contained in Title 29 CFR Parts 1926 and 1910.

Several guidance documents are available from the EPA to aid individuals responsible for asbestos management or abatement:

EPA 560/5-85-024, Guidance for Controlling Asbestos-Containing Materials in Buildings, June 1985.

EPA 560/5-85-029A, Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials, October 1985.

EPA 560/5-85-018, Asbestos in Buildings Guidance for Service and Maintenance Personnel, July 1985.

EPA 530-SW-007, Asbestos Waste Management Guidance Generation, Transport and Disposal, May 1985.

SAFE DRINKING WATER PROGRAM

OBJECTIVES

THE ARMY'S PROGRAM OBJECTIVES

- To provide a quality and quantity of drinking water to Installations that meet regulatory requirements and is protective of Army soldiers' well-being.
- Conserve and protect drinking water resources, including surface water and groundwater sources.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Provide adequate supplies of drinking water meeting all applicable standards.
- Develop and maintain sampling and analysis programs that comply with regulations.
- Provide copies of chemical analyses data required by regulation to USACHPPM.
- Maintain an active cross-connection control program as required by your state.
- Develop an appropriate wellhead protection or source water protection program that protects source water areas.
- Ensure treatment facility operators obtain required certifications.
- Obtain permits for new or modified drinking water facilities.
- Notify MACOM when new permits are received and new regulations are proposed or issued that will require modification of existing treatment facilities.
- Notify customers, the state, and the EPA within 24 hours of violations in which short-term exposure could cause serious adverse health effects.
- Submit copies of Notices of Violation (NOVs) to the MACOM.
- Produce and distribute annual Consumer Confidence reports to customers.

DRINKING WATER

Safe drinking water is a key ingredient to readiness and quality of life. About half of the drinking water in the United States is derived from rivers, streams, and other forms of surface water. The other half comes from underground water reserves known as aquifers. The quality of underground and surface water is a function of geography as well as the effects of human activity. Natural contaminants include suspended matter, microbiological organisms, sulfates, chlorides, nitrates, fluoride, and radionuclides. Fortunately, modern technology can manage or remove these natural contaminants from drinking water.

Besides natural pollutants, there are more than 60,000 man-made drinking water contaminants. These are chemicals used by industry and agriculture and range from solvents to pesticides. When used or discarded improperly, these chemicals can pollute underground and surface water and, in turn, contaminate drinking water. Disinfectants used at water treatment plants to purify drinking water also can create hazardous by-products. For example, chlorine, the standard chemical used in the U.S. to remove bacteria from raw water supplies, can react with natural and man-made chemicals in the water to form undesirable by-products known as trihalomethanes.

Water distribution systems (through which treatment plants pump water to consumers) also pose a threat. Corrosion from rusting pipes and lead from lead-soldered pipes can potentially contaminate water as it moves through the system.

CURRENT REGULATIONS

CURRENT REGULATIONS

The Safe Drinking Water Act (SDWA), enacted in 1974 and amended in 1986 and 1996, requires the EPA to set primary drinking water regulations for any pollutants that may adversely effect human health. The EPA has set primary drinking water standards through action levels, treatment techniques, or maximum contaminant levels (MCLs) for more than 79 pollutants. The SDWA also restricts the use of lead in drinking water distribution systems.

The Lead Contamination Control Act of 1988 requires states to develop lead monitoring programs for school, day care, hospital, and housing drinking water systems. The Lead and Copper Rule of 1991 established standards for lead and copper content in drinking water. Minor revisions were made to the rule in December 1999. The 1996 amendments prohibit use of lead plumbing, including fixtures. Installations must now use lead-free plumbing when replacing plumbing components.

The EPA has developed secondary MCLs to control 15 contaminants in drinking water that primarily affect the aesthetic qualities related to public acceptance of water. These contaminants include chloride, iron, and pH. The secondary regulations are not federally enforceable, but serve as guidelines for state regulatory agencies. However, some states consider the secondary MCLs as enforceable requirements as are primary MCLs. Therefore, installation environmental staffs should determine if their state enforces secondary MCLs.

Water supply system managers are required to regularly analyze treated water to verify that MCLs are met. Water suppliers must also notify their customers whenever water quality does not meet the recommended limits.

The 1996 amendments require water systems to notify users, the state, and the EPA within 24 hours of violations if short-term exposure could cause serious adverse health effects. Installations will have less time to notify users of violations with potentially serious adverse effects. The amendments also require that water systems provide customers with annual Consumer Confidence Reports, which list levels of regulated contaminants along with maximum contaminant levels and maximum contaminant level goals. The reports must also include a statement of the health concerns for any contaminants for which there has been a violation, describe the sources of drinking water and provide data on unregulated contaminants for which monitoring is required.

The EPA published guidance for state source water assessment programs in August 1997, a result of the 1996 amendments that delineate protection areas and assess contamination risks. The guidance requires states to carry out and complete source water assessment programs within two years. Some states are requiring some systems (including those at Army installations) to conduct

the source water assessment themselves. The EPA is also required to promulgate rules that will further control disinfectant and disinfection by-product levels, as well as cryptosporidium (a disease-causing microorganism) in drinking water. The first stage of these rules was published in November 1998. All rules will be published by May 2002.

As far as the Army is concerned, the most important aspect of the 1996 amendments is the expansion of the waiver of sovereign immunity. This waiver allows the EPA to impose civil penalties (punitive and coercive) against the Army. Fines may be up to $25,000 per day per violation. Federal employees also are subject to criminal sanctions (including fines and imprisonment) but not to civil penalties. Citizens are allowed to file suit to force the collection of administrative penalties assessed by the EPA against a federal agency after 18 months if the penalty has not been paid.

REFERENCES

REFERENCES

AR 200-1, Environmental Protection and Enhancement, February 1997.

AR 420-49, Facilities Engineering Utilities Services Guide, April 1997.

Medical Technical Bulletin (TBMED) 576, Sanitary Control and Surveillance of Water Supplies at Fixed Installations, March 1982.

USACHPPM Technical Guide (TG) No. 179, Drinking Water Regulations Under the Safe Drinking Water Act, November 1995.

The national primary and secondary drinking water regulations are contained in Title 40 CFR Parts 141 and 143.

Regulations and public documents for the water program are included in Title 40 CFR Parts 104 through 149.

Energy Policy Act of 1992 (Public Law 102-486), which requires federal facilities to install water conservation measures with a payback period of less than 10 years, to the maximum extent practicable.

EPA Pamphlet, You and Your Drinking Water, December 1986 (available from your Federal Facility Coordinator).

MIL-HDBK 1164, Operation and Maintenance of Water Supply Systems.

USAEC Report, Wellhead Protection Requirements and the Status of Army Facilities, prepared by Horne Engineering Services, April 1995.

USAEC and the U.S. Army Center for Public Works, Wellhead Protection Program and Plan Development Updated Compliance Matrix Supplement, April 1997.

USACHPPM TG No. 216, Meeting the Requirements of the Wellhead Protection Program, February 1996.

The Public Health Service Act, as amended by the Safe Drinking Water ACt, 42 USC Section 300f et.seq.

HAZARDOUS WASTE AND MATERIALS PROGRAMS

The Army has made great progress in managing hazardous materials (HM) and reducing hazardous waste (HW) generation. Hazardous materials are used in nearly every part of the Army mission and include paints, solvents, batteries, protective mask cartridges, and weapon cleaning materials. Generally, the directorates of Logistics and Public Works, as well as the Defense Reutilization and Marketing Office (DRMO), are responsible for purchasing hazardous materials and disposing of waste on an installation. The pervasive nature of HM/HW requires Army units throughout the installation to know how to manage their hazardous materials. Installations must develop effective systems of standard operating procedures (SOPs), training, and courtesy inspections to ensure all HM/HW handlers are properly trained.

Two important tools are available to Army commanders for controlling the cost of hazardous materials purchase and hazardous waste disposal: the Hazardous Material Control Center (HMCC) and the Hazardous Substance Management System (HSMS). HMCC allows the installation to control the issue of hazardous materials, helping it to reduce the amount of hazardous wastes generated. This saves both purchase and disposal costs, and reduces the regulatory compliance burden. HSMS helps installations track HM/HW, maintain HM/HW inventories, and meet HW reporting and other compliance requirements.

THE ARMY'S HAZARDOUS MATERIALS MANAGEMENT PROGRAM

OBJECTIVES

THE ARMY'S PROGRAM OBJECTIVES

- Implement a local HMMP that identifies hazardous material management requirements, assigns responsibilities for management, and establishes local operating procedures.
- Apply best management practices throughout the hazardous materials life cycle to reduce rusk to human health and the environment from hazardous materials.
- Prevent pollution.
- Comply with Executive Order 12856, Federal Compliance With Right-To-Know Laws and Pollution Prevention Requirements.
- Comply with applicable toxic substance regulations.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Establish procedures to identify and correct management deficiencies.
- Establish a training program and make sure all involved personnel are properly trained.

THE ARMY'S HAZARDOUS MATERIAL MANAGEMENT PROGRAM (HMMP) OBJECTIVES - HAZARDOUS MATERIAL CONTROL CENTER (HMCC)

- Centralize hazardous material management and compliance functions.
- Distribute to authorized users in quantities limited to immediate needs.
- Track HM throughout its life cycle at a facility.
- Avoid hazardous material procurement costs by collecting or reissuing unused servicable HM on a free-issue basis.
- Avoid hazardous material procurement costs by reducing the HM inventory on an installation.
- Collect or reissue unused serviceable HM on a free-issue basis.
- Cut costs by reducing the HM inventory on an installation.
- Reduce amounts of waste disposed and materials purchased.

HMMP is the program for the management and control of hazardous materials on Army installations. It is directed by AR 200-1 and AR 710-2. HMMP requires all Army activities to:

- Follow legally applicable and appropriate federal, state, and local environmental regulations or Final Governing Standards and Army environmental quality policies.
- Reduce or eliminate the use, storage, and disposal of hazardous materials.
- Apply best management and business practices to increase efficiency while reducing risk to human health and the environment. These practices will be applied throughout the life cycle of HM from research and development (R&D), through procurement and use, to the ultimate disposition.
- Make HM inventories visible from "cradle-to-grave" within the confines of the activity.
- Safely handle and transport HM.

Centralization of HMMP functions through automation or physical location is essential to an effective program and saves Army resources.

OBJECTIVES - HAZARDOUS SUBSTANCE MANAGEMENT SYSTEM - (HSMS)

- Track HM requisitioned, received, stored, issued, used and recycled, and hazardous waste disposed, from "cradle to grave."
- Maintain information on all processes that use HM or generate hazardous waste.
- Calculate chemical release information.
- Provide data for site specific, hazardous material and chemical data reports.

The Army Hazardous Substance Management System (HSMS) Program is an integrated program which is made up of two mutually inclusive components—the Hazardous Material Management Program (HMMP) and the HSMS software. The ultimate objective of this program is to ensure that Army installations have implemented a sound and workable program for control of hazardous materials and hazardous wastes.

Hazardous Substance Management System (HSMS) software has been developed as a tool to enable centralized hazardous material management business practices at Army installations. HSMS software is DoD's standardized automated information system for tracking and reporting of hazardous substances on installations, from procurement through disposal, as part of an overall pollution prevention and hazardous material management program. The software may be used to track the use of hazardous material constituents and the generation of waste and its subsequent disposal; limit the procurement of HM to authorized personnel for approved processes; and tabulate necessary information for compliance reporting. The HSMS software is comprised of six modules that record, track, and report on every stage of a HM throughout its existence.

THE ARMY'S PROGRAM OBJECTIVES

THE ARMY'S HAZARDOUS WASTE PROGRAM OBJECTIVES

- Comply with all pertinent federal, state, and local regulations. Establish installation and unit SOPs to ensure compliance.
- Correct regulatory violations in a timely manner.
- Systematically evaluate waste streams and ensure they are properly managed.
- Properly train all personnel who work with hazardous waste materials (and document the training).
- Implement and communicate HW management procedures wherever hazardous waste is generated or otherwise managed.
- Use regular courtesy inspections of all activities generating HW to ensure proper implementation of procedures and effective HW training.
- Submit justification with needs analysis for any new permit requests or permit renewal through MACOMs to HQDA.
- Use the Defense Reutilization and Marketing Office (DRMO) for routine HW disposal needs, unless an exemption is approved by HQDA.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Establish a hazardous waste training program to make sure all HM/HW handlers are properly trained.
- Work with DRMO to determine markets for materials and wastes.
- Maintain responsibility for hazardous waste management for all installation activities, including tenants and sub-installations.

- Use the installation Environmental Quality Control Committee (EQCC) to promote progress in meeting HW reduction and supporting pollution prevention goals.
- Support the efforts of the environmental coordinator.
- Set up or maintain a payment system for HW disposal costs.
- Conduct routine courtesy inspections of HW activities on post as needed.
- Consider alternatives to owning RCRA-permitted facilities before seeking to renew or obtain a RCRA permit.
- Notify the MACOM immediately of any Notices of Violation.

There are two protocols for regulating hazardous waste: one for cleanup of past activities, the second for regulation of ongoing activities. The cleanup of hazardous waste from past activities is principally regulated by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA is discussed in the Installation Restoration Program section. Ongoing hazardous waste activities are regulated under the Resource Conservation and Recovery Act (RCRA). RCRA's complex regulations and rigorous standards have long been the Army's largest cause of environmental enforcement actions. States generally have primacy for RCRA enforcement but the EPA can join state regulators in inspections. Since the Federal Facility Compliance Act (FFCA) waived sovereign immunity in 1992, Army installations have paid substantial RCRA fines.

The cornerstone of RCRA is its definition of solid and hazardous waste. The fundamental task for an installation is to determine which of its waste streams contain hazardous waste. RCRA details exact requirements for generators and transporters of hazardous waste and for HW treatment storage and disposal facilities. Failure to meet these exacting requirements is the cause of most the Army's RCRA compliance problems.

Common RCRA deficiencies include:

- Improper waste identification
- Improper labeling of HW containers
- Storing HW longer than the authorized time period
- Improper HW training records or training (all personnel involved in hazardous waste activities must receive annual training on safety and operational requirements)
- Manifest deficiencies.

RCRA requires complex permits for HW treatment, storage, and disposal facilities (TSDF). While many Army installations cannot avoid such permits, these permits tend to be very expensive and the source of many Army compliance problems. RCRA requires EPA to do annual inspections at all permitted facilities. Installation commanders should consider all options before obtaining or renewing a RCRA permit. If a permit is required, Army policy, as stated in AR 200-1, requires the installation to forward a justification through its chain of command to the Assistant Chief of Staff for Installation Management (ACSIM).

Generator Payment for HW Disposal: Army policy requires commanders to implement charge-back procedures so that generating activities pay for disposal of the HW they generate. This policy serves to increase a unit's commitment to pollution prevention, but requires ever greater installation oversight to ensure compliance with all HW regulations.

Other regulated Hazardous Materials/Wastes, not covered elsewhere in this volume, include:

POLYCHLORINATED BIPHENYLS (PCBs) are a special group of hazardous materials regulated by the Toxic Substances Control Act (TSCA). These are commonly found at Army installations, especially in older electrical transformers, and require special attention from the Public Works directorate. The TSCA banned the manufacture of PCBs in 1977 and closely regulates the use, storage, and disposal of those still in use. The Army's policy is to manage these PCBs in accordance with TSCA and leave them in place until operational, economic, or environmental considerations justify their removal.

MEDICAL WASTE. Army organizations, and most states, apply the term Regulated Medical Waste (RMW) to what is sometimes known as infectious waste. RMW is not regulated by the EPA but states often regulate RMW management. The Army Medical Department (AMEDD) has responsibility for properly managing and disposing of RMW. Health care facilities generally have their own regulations, which reflect state and local requirements. These regulations are reviewed and the actions described are monitored by various AMEDD inspections. Commanders can receive specific information from the local AMEDD commander.

THE ARMY'S PROGRAM OBJECTIVES

THE ARMY'S HAZARDOUS SUBSTANCE SPILL PROGRAM OBJECTIVES

- Comply with all applicable regulations.
- Manage and dispose of oil and hazardous substances in a safe and environmentally sound manner.
- Provide for prompt, coordinated response to contain and clean up spills.
- Cooperate with non-Army agencies to prevent spills.
- Assist, in accordance with the National Contingency Plan (NCP), with cleanup of spills not caused by Army activities (consistent with operational commitments).

COMMANDER'S ROLE

COMMANDER'S ROLE

- Develop and implement Spill Prevention, Control, and Countermeasure Plans (SPCCP).
- Update the SPCCP every two years.
- Perform inspections to verify compliance and test SPCCPs.
- Comply with OSHA regulations for operations, medical surveillance and training of installation spill teams.
- Ensure proper materials management.
- Consult with the installation public affairs officer concerning reaction to spills.
- Budget for resources needed for emergency response.
- Determine whether the facility can respond appropriately to off-post spills.

- Make sure reportable releases are reported to appropriate authorities.
- Appoint an Installation On-Scene Coordinator (IOSC) and an Installation Response Team (IRT).
- Notify the MACOM immediately if a spill occurs.

Proper management of HM and HW includes adequate spill prevention measures. Each installation with the capability to release a reportable quantity of oil or a hazardous substance must prepare and implement a spill Prevention, Control, and Countermeasure Plan (SPCCP). RCRA has spill control requirements for RCRA hazardous waste facilities but other regulations, such as CERCLA and the Clean Water Act (CWA), are much broader and cover all hazardous substances.

"Hazardous substance" is a legal term that generally equates to the DOT hazardous materials list plus the RCRA hazardous waste list. These hazardous substances are regulated if spilled or otherwise released to the environment. If more than the EPA-designated "reportable quantity" of a hazardous substance is released to the environment, the release must be reported to the appropriate regulatory agency. When spills of oil and other petroleum products could enter waterways, they are regulated under the CWA.

REFERENCES

REFERENCES

AR 200-1, Environmental Protection and Enhancement, February 1997.

AR 710-2, Inventory Management Supply Policy Below the Wholesale Level, October 1997.

The Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 *et seq.*

The Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601 *et. seq.*

RCRA hazardous waste regulations are contained in Title 40 CFR Parts 260 through 270.

DOT hazardous materials regulations are contained in Title 49 CFR Parts 106 through 178.

Oil Pollution Prevention regulations are contained in Title 40 CFR Part 112.

DoD 4500.9-R Defense Transportation Regulation, Part II, Cargo Movement.

DoD 4160.21M Defense Material Disposition Manual.

Hazardous communication regulations are contained in Title 29 CFR.

Toxic Subltance Control Act, 15 U.S.C. Section 2601 *et.seq.*

TSCA regulations are contained in Title 40 CFR Part 760.

Rules for oil spills, extremely hazardous substances, and PCB regulations under TSCA are detailed in Title 40 CFR Part 761.

CERCLA hazardous substance regulations are contained in Title 40 CFR Parts 300 through 302.

OSHA training requirements are outlined in Title 29 CFR Part 1910.

TM 38-410, Storage and Handling of Hazardous Material, May 1992.

WEB SITES for further information:

http://www.drms.dla.mil/

http://chppm-www.apgea.army.mil/

http://www.dscr.dla.mil/

LEAD HAZARD MANAGEMENT PROGRAM

THE ARMY'S PROGRAM OBJECTIVES

OBJECTIVES

- Minimize environmental releases and occupational and incidental exposure.
- Handle and dispose of lead-based paint (LBP) and other lead hazards in compliance with regulations.
- Perform risk assessments in family housing and child-occupied facilities to identify lead hazards in paint, dust, and soil.
- Train personnel involved with lead activities in accordance with all federal, state, and local laws and regulations.
- Implement an interim control program (in-place management and on-going monitoring) to prevent child and worker overexposure to lead hazards.
- Disclose to occupants, upon assignment of family housing, the known presence of LBP or other lead-based hazards.
- Provide occupants with the EPA lead information pamphlet prior to renovations that disturb over two square feet of painted surface.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Promote working and living environments free from lead hazards.
- Verify that lead-containing debris and waste from demolition and abatement projects are disposed of in an approved method.
- Comply with applicable federal, state, and local laws and regulations concerning characterization, handling, storage, transportation, and disposal of lead-contaminated waste.
- Establish installation lead hazard management teams that develop and implement lead hazard management plans.
- Confirm that required EPA lead information pamphlets are provided to tenants, buyers or residents prior to lease or sale of pre-1978 housing, or renovations disturbing over two square feet of painted surface.

LEAD HAZARD MANAGEMENT

Lead hazard management is the management of lead-based paint (LBP) and other lead hazards. Lead, the most serious environmental threat to young children today, is of great concern to the Army. Lead paint was first introduced into the United States in the early 1900s and remained widely used on some Army installations until the 1970s.

The most immediate lead hazards are found in structures with peeling lead paint or excessive levels of lead dust from deteriorating paint. Windows are often a hazard because the friction of opening and closing the window generates large amounts of dust. Also, if renovations are not performed correctly, lead dust can spread throughout the structure and surrounding environment.

CURRENT REGULATIONS

CURRENT REGULATIONS

The Army's LBP concerns stem from ensuring the proper disposal of waste and debris (such as paint chips and painted building parts) from the demolition of World War II-era structures on Army installations. In 1992, Title IV of the **Toxic Substance Control Act, Lead Exposure Reduction,** (Public Law 102-550) specifically waived sovereign immunity and required federal facilities to comply with state and local regulations on lead-based paint.

Since 1996 EPA has required property owners to provide an EPA Lead information pamphlet during sale or lease of pre-1978 housing. Effective June 1999, EPA required renovators to provide an EPA pamphlet to residents prior to renovations that disturb over two square feet of painted surface.

Under the **Resource Conservation and Recovery Act,** installations are required to characterize their lead-based paint waste and dispose of it by an approved method. Under Executive Order 12196, federal agencies are to establish an occupational safety and health program that is consistent with Occupational Safety and Health Administration (OSHA) standards. Relevant lead exposure OSHA standards are in 29 CFR 1910.1025, Lead and 29 CFR 1926.62, Lead Exposure In Construction, Interim Final Rule–Inspection and Compliance Procedures).

Many states have more stringent regulations than the federal standards. For all activities involving potential exposure to lead, installations are required to consult with their respective states and comply with the most stringent standards applicable.

REFERENCES

REFERENCES

Public Law 102-550, Housing and Community Development Act of 1992, October 1992; Title X, Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title 42 USC 4851).

Title 29 CFR (Code of Federal Regulations) Part 35, Subtitle A (April 1, 1992), Subpart E, Elimination of Lead Based Paint Hazards in Federally Owned Properties Prior to Sale for Residential Habitation.

Title 29 CFR 1910 Part 1025, Lead.

Title 29 CFR Part 1926.62, Lead Exposure in Construction; Interim Final Rule, May 4, 1993.

Title 40 CFR Part 745, Requirements for Lead-Based Paint Activities in Target Housing and Child-Occupied Facilities; Final Rule, August 29, 1996.

Title 24 CFR Part 35, Subpart H, Disclosure of Known Lead-Based Paint and/or Lead-Based Paint Hazards Upon Sale or Lease of Residential Property, Final Rule, March 6, 1996 (co-listed Title 40 CFR Part 745, Requirements for Disclosure of Known Lead-Based Paint and/or Lead-Based Paint Hazards in Housing, Final Rule, March 6, 1996).

USAEHA interim Final Report No. 37-26-jk44-92, Lead-Based Paint Contaminated Debris Waste Characterization Study, May 1992-May 1993.

Memorandum, Subject: Lead-Based Paint Contaminated Debris - AEHA Guidance, 29 March 1994.

AR 420-70, Building and Structures, 1997.

AR 200-1, Environmental Protection and Enhancement, Chapters 4–6, February 1997.

Public Works Technical Bulletin (PWTB) 420-70-2, Installation Lead Hazard Management, 1997.

SGPS Memorandum, Subject: Childhood Lead Poisoning Prevention, 26 May 1993.

DoD Interim Final Guidance, "Lead-Based Paint Guidelines for Disposal of Department of Defense Residential Real Property - A Field Guide," December 1999.

Memorandum, Subject: Guidance for Lead-Based Paint, Hazard Management During Transfer of Army Real Property, 28 March 2000.

RADON PROGRAM

OBJECTIVES

- Implement the Army radon program.
- Implement the Army Radon Assessment Plan, designed to measure by priority the radon levels in schools, day care centers, hospitals, housing, offices, and other structures.
- Identify structures with indoor radon levels greater than 4 pCi/L and implement mitigation actions to reduce levels to 4 pCi/L or less.
- Implement the Army Radon Mitigation Plan, specifying deadlines for mitigation based on radon levels.

THE ARMY'S PROGRAM OBJECTIVES

COMMANDER'S ROLE

- Incorporate radon mitigation techniques in new construction.
- Maintain a database of radon assessment and mitigation data.
- Budget for the measurement of radon in structures and mitigation of elevated levels.

COMMANDER'S ROLE

RADON MANAGEMENT

Radon is a colorless and odorless radioactive gas released by the natural degradation of uranium. It can be found in high concentrations in soils and rocks containing uranium, granite, shale, and phosphate. The only known health effect associated with exposure to elevated levels of radon is an increased risk of developing lung cancer, and this depends upon the concentration and the duration of exposure. Evidence also suggests that smokers are at higher risk from radon exposures than nonsmokers.

Outdoor air naturally contains radon in concentrations of 1 picocurie per liter (pCi/L), with average concentrations of about 0.5 pCi/L. Although these levels are not considered to be of concern, radon can concentrate inside homes or buildings to levels exceeding several hundred pCi/L. Radon gas can enter buildings through dirt floors, cracks in concrete floors and walls, floor drains, sumps, joints, and tiny cracks or pores in hollow-block walls.

CURRENT REGULATIONS

CURRENT REGULATIONS

There are no federal regulations relating to radon in the home or workplace. However, the Environmental Protection Agency endorses the idea that indoor radon exposure levels greater than 200 pCi/L require immediate mitigation actions. Additionally, based on current information, the EPA believes that indoor radon concentrations can be reduced to 4 pCi/L in most homes. The Army's action level is 4 pCi/L. Individual states have laws requiring certification and licenses for

people who test for radon or perform radon mitigation activities.

REFERENCES

REFERENCES

AR 200-1, Environmental Protection and Enhancement, February 1997.

USAEHA Technical Guide No. 164, The Department of the Army Radon Program, 19 September 1989.

The following materials are available from your Federal Facility Coordinator:

OPA-86-004, A Citizen's Guide to Radon, August 1992.

OPA-87-010, Radon Reduction Methods, September 1987.

USACPW Technical Guidance on Radon, December 1992.

EPA/400/1-88/004, The Inside Story: A Guide to Indoor Air Quality, September 1992.

EPA/520/1-87-20, Radon Reference Manual, September 1987.

SOLID WASTE MANAGEMENT PROGRAM

OBJECTIVES

THE ARMY'S PROGRAM OBJECTIVES

- Reduce, reuse, and recycle solid waste to the greatest extent possible.
- Pursue the use of joint or regional solid waste management programs and facilities with federal and nonfederal agencies.
- Privatize solid waste management facilities or contract for waste disposal services, including recycling.
- Cooperate to the extent practicable in recycling programs conducted by the civilian community (on installations that do not have recycling programs).
- By the end of FY 2005, greater than 40% diversion rate for nonhazardous solid waste, and integrated nonhazardous solid waste management programs that demonstrate an economic benefit (when compared only with landfill and incineration disposal).
- Comply with all applicable federal, state, local, and host nation laws and regulations for generating, treating, storing, disposing, and transporting solid waste.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Establish and/or maintain a functional organizational structure to plan, execute, and monitor the solid waste program.
- Establish programs to reduce waste production and increase reuse, recycling, and composting.
- Monitor and control the amount and appropriateness of waste needing incineration or landfilling.
- Encourage programs for safe, timely, and documented collection, storage and disposal of hazardous and medical infectious wastes.
- Provide command emphasis on facility cumulative solid waste reduction, materials reuse, recycling, affirmative procurement, and composting.
- Ensure that proceeds from the Qualified Recycling Program (QRP) are used in accordance with Public Law 152 and DoD instruction 7310.1.

INTEGRATED SOLID WASTE MANAGEMENT

CURRENT REGULATIONS

CURRENT REGULATIONS

Non-hazardous solid waste is managed in accordance with Subtitle D of RCRA. These regulations include requirements for location restrictions, facility operation and design, groundwater monitoring, corrective actions,

financial assistance, and closure/post-closures. The EPA has delegated authority to states meeting certain requirements to implement this program. This is similar to the RCRA hazardous waste program and has resulted in increased costs for municipal solid waste management and disposal.

State and local governments enact regulations related to the management of Subtitle D wastes. For instance, many states require permits for solid waste landfills and composting operations. Authorities promote increased use of product separation, source reduction, recycling, and composting to reduce the volume of solid waste requiring disposal under Subtitle D. It is the commander's responsibility to take the actions necessary to comply, because military installations' immunity from state and local environmental regulations has been waived in many instances by the Federal Facility Compliance Act and other laws.

Two executive orders also spell out solid and hazardous waste requirements. Executive Order 12856—Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements, requires installations to inform the public about the hazardous substances and toxic chemicals they store and to reduce 1994 levels of toxic substances by 50 percent by 1999. Executive Order 13101—Greening the Government through Waste Prevention, Recycling, and Federal Acquisition, addresses the entire solid waste cycle by requiring waste reduction targets, recycling goals, and an affirmative program to purchase recycled and environmentally preferable products.

Army installations must also comply with Army Regulation 420-49, "Facilities Engineering Utilities and Services Guide" (dated 28 April 1997), which superseded AR 420-47, "Solid and Hazardous Waste Management." AR 420-49 addresses collection, storage, processing, and disposal of solid wastes. It also specifies the responsibilities of the commander and other installation personnel in the planning and administration of the installation Integrated Solid Waste Management (ISWM) program. As part of an ISWM program, an installation may establish a recycling program, which in addition to reducing the volume of solid waste requiring disposal, may provide income or cost savings to the installation. All proceeds from sales of recyclable materials are returned to installations with qualifying recycling programs. After the program operating costs have been recovered, the remaining proceeds are available to finance projects or pollution abatement, energy conservation and occupational safety and health activities, as well as morale, welfare and recreation programs.

Regulatory directives, such as Executive Order 13148—Greening the Government Through Leadership in Environmental Management, as well as public opinion, have increased the emphasis on solid waste management and recycling issues. The Army has found it to be in the Army's best interest to constantly evaluate its solid waste management practices and increase its source reduction, procurement of products containing recovered materials, and recycling/recovery programs.

REFERENCES

REFERENCES

AR 200-1, Environmental Protection and Enhancement, February 1997.

AR 420-49, Facilities Engineering Utilities Services Guide, April 1997.

The Federal Facility Compliance Act of 1992 (FFCAct).

Executive Order 12856—Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements.

Executive Order 13101—Greening the Government through Waste Prevention.

Executive Order 13148—Greening the Government Through Leadership in Environmental Management Recycling, and Federal Acquisition.

The Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 *et seq.*

Title 40 CFR Parts 240-258 contain solid waste management regulations.

STORAGE TANK SYSTEMS MANAGEMENT PROGRAM

THE ARMY'S PROGRAM OBJECTIVES

OBJECTIVES

- Identify all leaking tanks and take corrective action to minimize environmental impacts.
- Comply with federal and state requirements.
- Maintain an annually up-to-date inventory all above ground (ASTs) and underground storage tanks (USTs) worldwide.
- Upgrade heating oil tanks.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Notify the appropriate state or local agency and HQDA of existing or new USTs and ASTs.
- Provide leak tests for all USTs and piping, and initiate corrective action for all leaking tanks.
- Permanently close or remove all abandoned tanks within one year of temporary closure.
- Install new tanks that meet standards.
- Retrofit ASTs with secondary containment.
- Provide release detection and cathodic protection for all USTs and piping.

STORAGE TANK SYSTEMS: UNDERGROUND TANKS (USTs) AND ABOVE GROUND TANKS (ASTs)

Storage tanks systems can be above ground (ASTs), underground, or partially underground (USTs). A tank system includes the storage or treatment tank and its associated ancillary equipment and containment system. The regulation defines an AST as a tank situated in such a way that its entire surface area (including the bottom) is above the plane of the adjacent surrounding surface and can be visually inspected.

For more than 50 years, USTs have been widely used throughout the nation to store petroleum products, chemicals, and wastes. Most of these tanks contain petroleum products such as gasoline or oil.

The Environmental Protection Agency estimates that 25 percent of the hundreds of thousands of USTs nationwide may be leaking. Tests at Army installations over the past few years have shown about 25 percent of Army USTs to be leaking. It is important to recognize that the pipes, as well as the tanks, are a source of leaks.

The nation draws about half of its drinking water from groundwater sources. Leaking underground

storage tanks have contaminated many drinking water sources and cleanup from a leaking UST can cost $100,000 or more.

USTs don't have to be totally underground to be regulated. Generally, regulated USTs are those that have 10 percent or more of their volume underground (including the piping) and exceed 110 gallons capacity.

CURRENT REGULATIONS

USTs

In 1984, Congress added Subtitle I to the Resource Conservation and Recovery Act (RCRA), establishing a comprehensive regulatory program for USTs containing regulated substances. The EPA regulates this program under Title 40 CFR (Code of Federal Regulations) Part 280. In addition, many states have enacted UST regulations.

CURRENT REGULATIONS

Specific requirements vary depending on the contents of tanks. Generally, tanks must meet specific installation standards and requirements for corrosion protection, spill/overfill prevention and leak detection. The Army met the December 20, 1998, deadline to upgrade all USTs with leak detection, corrosion, spill, and overfill protection. However, the Army has a persistent problem in making sure that leak (release) detection and corrosion (cathodic) protection systems remain functional. EPA will now be directing its enforcement efforts towards inspecting whether these systems are working properly. This should also be the prime focus of your storage tank program, because broken systems can lead to leaks and very costly cleanups, in addition to potential fines.

Subtitle C of RCRA establishes requirements for managing hazardous wastes. The requirements for tank systems storing hazardous wastes are detailed in Title 40 CFR Parts 264, Subpart J and 265, Subpart J. The regulations for these tank systems apply to both underground and above ground units. Note that a tank system assessment is required when installing new tank systems. This applies to those systems at treatment, storage, and disposal facilities (TSDFs) and those systems used for waste accumulation under Title 40 CFR Part 262.34.

ASTs

Above ground systems have been guided by National Fire Protection Association standards (NFPA-30), Title 40 CFR Part 112, Spill Prevention, Control and Countermeasure Plan (SPCCP) for POL tanks, and applicable sections of various (and predominantly local) building and structural codes.

REFERENCES

AR 200-1, Environmental Protection and Enhancement, February 1997, Chapters 3-5

Federal regulations for storage of oil in above ground storage tanks are addressed in Title 40 CFR Parts 110-112.

Federal regulations for storage of hazardous waste in tanks are addressed in Title 40 CFR Parts 264 and 265.

REFERENCES

The Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 *et. seq.*

Federal UST regulations for storage of regulated substances are addressed in Title 40 CFR Parts 280.

Current Army policy and guidance documents for procedures concerning inventory control practices include:

AR 710-2, Supply Policy Below the Wholesale Level.

DA PAM 710-2-1, Using Unit Supply Manual.

DA PAM 710-2-2, Supply Support Activity Supply Manual.

Other useful publications providing detailed instructions on inventory control procedures include:

FM 10-69, Petroleum Supply Point Equipment and Operations.

FM 10-18, Petroleum Terminal and Pipeline Operations.

API Guidance Manual 1621, Bulk Liquid Stock Control at Retail Outlets.

TM 5-678, Petroleum, Oils and Lubricants: Repairs and Utilities (outlines general maintenance requirements).

EPA Office of Underground Storage Tanks, Musts for USTs: A User's Guide to Regulations for Underground Storage Tank Systems, August 1988.

U.S. Army Toxic and Hazardous Materials Agency (USATHAMA), Compliance Guide for Existing Underground Storage Tank Systems, June 1990.

EPA-510-B-94-007, Guide to EPA Materials on Underground Storage Tanks, September 1994.

EPA-510-K-95-003, Straight Talk on Tanks: Leak Detection Methods for Petroleum Underground Storage Tanks and Piping, July 1995.

SFIM-AEC-EQ-TR-200054, U.S. Army Guide for Underground Storage Tank Management, December 2000.

WASTEWATER MANAGEMENT PROGRAM

OBJECTIVES

THE ARMY'S PROGRAM OBJECTIVES

- Control or eliminate sources of pollutants discharged to waters of the U.S (surface waters) though conventional or innovative treatment systems.
- Demonstrate leadership in attaining the national goal of zero discharge of water pollutants.
- Cooperate with regulatory authorities in forming and implementing water pollution control plans.
- Control or eliminate runoff and erosion through sound vegetative and land management practices.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Develop and maintain wastewater monitoring programs to ensure compliance with NPDES permits and regulations.
- Obtain operating permits for treatment facilities.
- Notify the MACOM when new permits are received or new regulations are proposed or issued that will require modification of existing treatment facilities.
- Submit copies of Notices of Violation (NOVs) immediately to the MACOM.

WASTEWATER MANAGEMENT

A typical installation generates wastewater from sanitary uses, industrial processes, and stormwater runoff. Adequate treatment of these waste streams maintains the quality of the water receiving the wastes.

CURRENT REGULATIONS

CURRENT REGULATIONS

The object of the **Federal Water Pollution Control Ac**t, as amended by the **Clean Water Act (CWA) of 1977** (and other amendments through 1987), is to restore and maintain the chemical, physical, and biological integrity of the nation's navigable waters.

The CWA regulates both point and non-point discharges into waters of the United States. Under CWA, the Environmental Protection Agency (EPA) has established standards for direct and indirect wastewater discharges, stormwater runoff, sewage sludge use, and disposal practices. The primary tool for wastewater compliance is through National Pollutant Discharge Elimination System (NPDES) permits.

Pollutant discharges from any point source into waters of the United States require a NPDES permit. This applies to facilities that treat industrial or domestic wastewaters and have runoff into storm water sewer systems. NPDES permits typically specify concentration limits of various pollutants that can be discharged from the permitted facility. For certain industries (known as categorical industries), the EPA has established effluent limitations or categorical standards. If a facility does not qualify as a categorical industry, permit limits are developed by the regulatory authority based on potential adverse impacts of pollutants to the receiving water. NPDES permits also require that the effluent be routinely sampled and analyzed and results reported to permitting authorities.

Biomonitoring is a common requirement in NPDES permits to identify any toxicity problems. Permits may also require pollution prevention or "best management practices" to further reduce the amount of toxins entering the treatment facility and/or receiving water.

An important component of the NPDES permitting process is the pretreatment program, which sets standards for the control of effluent from indirect discharges, or industrial sources of pollution that discharge effluent through publicly or federally owned treatment works. Industrial users must comply with three types of pretreatment standards: categorical standards, specific prohibitions, and local limits. Categorical pretreatment standards have been established by the EPA and apply to all industrial users. Specific prohibitions are general standards established by the EPA and apply to all industrial users. States and local municipalities may set additional limits on indirect discharges to protect the wastewater treatment facility.

NPDES permits are required for stormwater runoff from certain industrial and construction activities. These permits require the regulated activity to develop and implement a Stormwater Pollution Prevention Plan. The plan describes materials-management measures that reduce or eliminate stormwater pollution. Common regulated activities at Army installations include motor pools, Defense Reutilization and Marketing Office yards, and landfills.

The CWA also regulates sewage sludge generated from domestic wastewater treatment plants. These regulations address requirements for sewage sludge that is applied to land, placed on a surface disposal site, or fired in a sewage sludge incinerator.

REFERENCES

REFERENCES

AR 200-1, Environmental Protection and Enhancement, February 1997.

AR 420-49, Facilities Engineering Utilities Services Guide, April 1997.

The Federal Water Pollution Control Act, as amended by the Clean Water Drinking Act, 33 U.S.C. Section 1251 *et.seq.*

Title 40 CFR (Code of Federal Regulations) Parts 122 through 140 contain regulations pertaining to the CWA.

POLLUTION PREVENTION

POLLUTION PREVENTION PROGRAM

Environmental regulations and Army policy make pollution prevention (P2) an integral part of strategies to protect health and the environment. The Army's P2 investment strategy includes:

- Reduce hazardous and non-hazardous waste generation and disposal.
- Improve hazardous material management by implementing Hazardous Material Control Centers.
- Review and revise technical documentation to remove requirements for hazardous material use.
- Incorporate pollution prevention into all stages of acquisition and procurement.
- Implement Integrated Pest Management to reduce herbicide and pesticide use.
- Research, develop, test, qualify, and transfer new pollution prevention technology.

OBJECTIVES

THE ARMY'S PROGRAM OBJECTIVES

Objectives – Strategic Goal

- Adopt and implement integrated management approaches, procedures, and operations in all mission areas to minimize environmental contamination and pollution.

Objectives – Waste Reduction

- Reduce solid waste generation, improve recycling and conserve energy.

Objectives – Hazardous Material Management

- Improve methods for tracking hazardous material inventories.
- Prevent spills and needless disposal of expired material stocks through better inventory control and material handling.
- Facilitate effective cooperation between materiel developers and weapon system managers and environmental teams.

Objectives – Pollution Prevention in Acquisition:

- Review military specifications (MILSPECs) and other hazardous materials.
- Seek pollution prevention opportunities during all phases of weapon systems' life cycles, especially during design and development.

Objectives – Pollution Prevention Ethic:

- Accomplish every Army mission with the environment in mind.
- Make preventing pollution the way the Army does business through strong command support, training, and public awareness.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Establish a strong pollution prevention program.
- Emphasize the pollution prevention ethic across all organizations and echelons of command.
- Survey their facilities to determine the sources, types, and amounts of hazardous waste generated, air pollutants released, solid waste disposed, and wastewater discharged.
- Reduce pollution sources by determining areas where material substitutions, process changes or re-engineering can reduce hazardous materials before recycling, treatment, or disposal.
- Maintain an up-to-date installation Pollution Prevention Plan.

POLLUTION PREVENTION

Army activities such as training, manufacturing, testing, maintenance, research and development, and health services produce a variety of pollutants.

Traditionally, the Army captured and reduced these pollutants after they left the stack or discharge pipe. Pollution prevention includes any reasonable mechanism that avoids, prevents, or reduces pollutant discharges or emissions by other means, preferably by reducing the use of hazardous materials and reducing wastes at their source.

There are several reasons why the Army stresses pollution prevention, or "P2". Disposed hazardous waste, water discharges, and air emissions all have been associated with environmental contamination. The Defense Department has spent billions of dollars cleaning up environmental effects of the past, and the cost of complying with current waste disposal regulations, wastewater treatment standards, and air pollutant emission limits continues to rise.

POLLUTION PREVENTION METHODS (Ranked by the EPA according to environmental and economic benefit).

Source Reduction. This includes substituting materials and changing processes to avoid the use of hazardous substances.

In-Process Recycling (Also Known As "Closed Loop"). If hazardous materials must be used, they should be reused in the same processes whenever possible.

Open Loop Recycling (Sometimes Called "Off-Site"). Materials no longer useful in a process should be reclaimed or used to recover energy.

Materials and residues that cannot be recycled must be treated and disposed of to prevent risks to human health and the environment.

Pollution prevention is any cost-effective mechanism or practice that eliminates or reduces the sources of pollutant discharges or emissions. Reducing the Army's reliance on products or processes that degrade the environment also reduces operating costs and liability from environmental compliance and cleanup.

POLLUTION PREVENTION INCLUDES:

- Modifying manufacturing, maintenance, or other business practices
- Modifying product designs
- Modifying technical documents to remove requirements for hazardous materials
- Acquiring and using environmentally preferable products and services
- Increasing energy efficiency and conserving materials
- Recycling.

CURRENT REGULATIONS

CURRENT REGULATIONS

The Resource Conservation and Recovery Act (RCRA) requires hazardous waste generators to implement an economically feasible program to reduce the volume or toxicity of hazardous waste. This requirement is the basis for hazardous waste minimization, or HAZMIN. Generators must report steps taken to minimize waste generation in biennial reports to the Environmental Protection Agency.

The Clean Air Act Amendments impose a strict schedule for controlling emissions of 189 hazardous air pollutants, and encourage voluntary source reduction by providing incentives to facilities that reduce emissions ahead of schedule. Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) requires annual reporting of more than 600 toxic chemicals after a reporting threshold is met. The data include pounds-per-year released to air, water, or land, and transferred for treatment.

Certain executive orders require solid waste reduction, recycling, and energy conservation. Federal agencies must reduce pollutants by 50 percent between 1994 and 1999 (based on 1994 levels for federal facilities). Any federal facility subject to EPCRA reporting must have had a written Pollution Prevention Plan by December 31, 1995.

The Pollution Prevention Act of 1990 promotes source reduction as the most effective form of preventing pollution. This act required Toxics Release Inventory reports to include source reduction and recycling measures for each reported chemical.

REFERENCES

P2-Links:

United States Army Environmental Center, http://aec.army.mil/

Army Office of the Director, Environmental Programs (ODEP), http://www.hqda.army.mil/acsimweb/env/

Army Assistant Chief of Staff for Installation Management (ACSIM), http://www.hqda/army.mil/acsimweb/

Army Environmental Reporting Systems Menu, http://131.92.180.16/cfprojects/ars/index.cfm

Army Acquisition Pollution Prevention Support Office, http://www.aappso.com/

Pollution Prevention (DENIX on the Web), http://www.denix.osd.mil/denix/Public/ES-Programs/Pollution/pollution.html

Environmental Protection Agency, http://www.epa.gov/

Enviroene(EPA), Common Sense Solutions to Environmental Problems, http://es.epa.gov/index.html

EPA Publications Source Providing access to EPA technical and public information, http://www.epa.gov/epahome/publications.htm

EPA Office of Pollution Prevention and Toxics, http://www.epa.gov/opptintr/opptpub.htm

EPA Pollution Prevention Information Clearinghouse, http://www.epa.gov/opptintr/library/ppicdist.htm

Washington State Department of Ecology—Hazardous Waste & Toxics Reduction, http://www.ecy.wa.gov/programs/hwtr/p2/p2home.html

Center for Environmental Information and Statistics, http://www.epa.gov/eg/

ACC Pollution Prevention Manger's Library, http://www.denix.osd.mil/denix/Public/Library/P2-Manager/toc.html

Hazardous Technical Information Services (HTIS), http://www.dscr.dla.mil/htis/htis.htm

National Defense Center for Environmental Excellence, http://www.ndcee.ctc.com/

National Pollution Prevention Roundtable, http://www.p2.org/

Toxic Use Reductions Institute Publications, http://www.turi.org/HTMLSrc/Publications.html

Air Force Center for Environmental Excellence, http://www.afcee.brooks.af.mil/

Naval Facilities Engineering Service Center (NFESC), Environmental Services, http://enviro.nfesc.navy.mil/

AR 200-1, Environmental Protection and Enhancement, February 1997 and DA PAM 200-1, Environmental Protection and Enhancement.

Title 40 CFR Part 262.41 and appendices detail HAZMIN requirements under RCRA.

Title III, Clean Air Act Amendments of 1990 (Public Law 101-549) details the source reduction requirements for hazardous air pollutants.

EPA/625/7-88/003, Waste Minimization Opportunity Assessment Manual, July 1988.

USAEHA, Technical Guide No. 178, A Commander's Guide to Hazardous Waste Minimization at Army Health Care Facilities, February 1990.

Executive Order 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements.

Executive Order 13101, Greening the Government through Waste Prevention, Recycling, and Federal Acquisition.

Executive Order 12902, Greening the Government through Efficient Energy Management.

OZONE-DEPLETING CHEMICALS (ODCs) PROGRAM

The Army Acquisition Pollution Prevention Support Office (AAPPSO) centrally manages the Army ODC Elimination Program under authority of the Assistant Secretaries of the Army for Research, Development, and Acquisition (ASA(RDA)) and Installations, Logistics, and Environment (ASA(IL&E)).

THE ARMY'S PROGRAM OBJECTIVES

OBJECTIVES

Eliminate Army dependency on Class l ODCs quickly and efficiently through strategies that include:

- Centralized program management in AAPPSO and decentralized execution.
- Relying on industry for alternatives to the maximum extent possible.
- Eliminating all dependency on ODC use through conversion or retrofit.
- Conserving and reusing ODCs installed in Army equipment.
- Replacing, recovering, and turning in (to the Army ODC Reserve) of all halon 1301 installed in facilities' fixed fire-suppression systems.
- Turning in all excess ODC material to the Army ODC Reserve.
- Requiring EPA approval of all alternative chemicals through the Significant New Alternatives Policy (SNAP) review process.
- Requiring toxicity clearance from the Army Surgeon General for all alternatives.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Insist that all contracts are reviewed and ODC approvals are processed in compliance with Section 326 of Public Law 102-484.
- Comply with the technician training and certification requirements of Sections 608-609 of the Clean Air Act of 1990.
- Verify that facilities's halon 1301 and ODCs, when identified as excess, are turned in to the Army ODC Reserve.
- Confirm elimination Class l ODCs by the end of fiscal year 2003.
- Expedite elimination of ODCs in weapon systems and industrial processes as rapidly as technology will allow.
- Require all chemicals considered as ODC alternatives to receive EPA SNAP approval and Surgeon General toxicity approval before use.

OZONE-DEPLETING CHEMICALS

Ozone-depleting chemicals are man-made compounds that present a serious threat to the Earth's ozone layer. Chlorofluorocarbon (CFC) refrigerants, halons, and solvents are the three categories of ODCs. The most common CFC refrigerant is R-12, also called freon, which is used in air conditioners and refrigerators on most Army installations. Halons are used extensively as fire-fighting agents and can still be found in Army facilities that house sensitive electronic or other high-value equipment, and in manned weapon systems.

ODC solvents, such as methyl chloroform (TCA), CFC-113 and carbon tetrachloride, are commonly used in manufacturing as degreasers and for precision cleaning. They may still be used in some depot industrial operations, as well as in weapon system and vehicle maintenance.

ODCs are stable and when released do not break down until exposed to the high radiation of the upper atmosphere. When this occurs they release chlorine or bromine, which react with ozone and deplete the ozone layer. The ozone layer protects humans and animals from harmful ultraviolet radiation (UV-B).

CURRENT REGULATIONS

CURRENT REGULATIONS

In 1987 the United States joined 120 other nations in signing the Montreal Protocol on Substances that Deplete the Ozone Layer. The Montreal Protocol established caps on the production of halon, freon, TCA, and other Class 1 ODCs. Soon after, 'Ozone Holes' were discovered over the North and South poles. In 1990, the Protocol was amended to ban the production of Class 1 ODCs in developed countries after the year 2000. This was codified in Title VI of the Clean Air Act Amendments of 1990. Sections 608 and 609 of that Act also levy training, certification, and operating requirements on technicians who service and maintain equipment using ODCs or ODC alternatives. On February 11, 1992, President Bush accelerated the ban on domestic production to December 31, 1993 for halons and December 31, 1995 for all remaining Class 1 ODCs. These dates were later accepted by all developed Protocol signatories through ratification of the Copenhagen Amendments of 1994. In 1992, Congress passed legislation that levied restrictive taxes on the sale, import, and storage of Class 1 ODCs. The same year, Congress included ODC language in the National Defense Authorization Act for Fiscal Year 1993 (Public Law 102-484), specifically prohibiting requirements for ODCs in Department of Defense contracts. This prohibition extends to the purchase of ODCs for use in weapon systems and facilities. Exceptions require a technical certification of need and the signature of a general officer or civilian equivalent. The services report every exception to Congress.

REFERENCES

REFERENCES

Guide to Preparing Ozone Depleting Chemicals Elimination Plans for Installations, prepared for AAPPSO, 14 January 1999.

ASA (IL&E) Memorandum, Ozone-Depleting Chemicals (ODC) Elimination at Army Installations, 13 February 1996.

Strategic Guidance and Planning for Eliminating Ozone-Depleting Substances from U.S. Army Applications, October 1995.

ASA (IL&E) Memorandum, Disposition of Excess Ozone-Depleting Substances (ODS) at Army Installations, 18 October 1994.

DASA(P) Memorandum, Ozone-Depleting Substances, 2 July 1993.

USACE Guidance Memorandum, Chlorofluorocarbon (CFC) Refrigerants in Operation and Maintenance, March 1992.

The Clean Air Act, 42 U.S.C. Section 7401 *et.seq.*

EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW PROGRAM

OBJECTIVES

- Maintain an emergency notification plan for the release of regulated substances.
- Comply with EPCRA requirements

THE ARMY'S PROGRAM OBJECTIVES

COMMANDER'S ROLE

- Designate a EPCRA/TRI coordinator to ensure that all installation reporting requirements are met.
- Prepare and submit a Toxic Release Inventory annually reporting the total annual releases and offsite transfers of toxic chemicals including munitions demilitarization activities.
- Reduce toxic releases by 50% from the 1994 toxic release inventory baseline.

COMMANDER'S ROLE

EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW

The Emergency Planning and Community Right-to-Know Act requires coordination with local and state emergency planners and first responders, annual hazardous substance inventory reporting to local and state emergency planners, and annual reporting to the national Toxic Release Inventory (TRI). The EPCRA TRI is a publicly available database that contains specific toxic chemical release and transfer information from manufacturing and federal facilities throughout the United States. Each year, facilities report the amounts of toxic chemicals released from the facility to the air, water, and land and the amounts transferred off site for treatment, disposal, recycling, or energy recovery. Facilities also provide extensive identifying information, such as name, latitude and longitude, environmental permit numbers, and destination of hazardous waste transferred off site.

Government Owned, Contractor Operated (GOCO) ammunition manufacturers have been reporting to the EPCRA TRI since 1987. All other Federal facilities have been reporting since 1994, as directed by Executive Order 12856. Army installations have reported EPCRA TRI releases from the following activities: ammunition manufacture, processing, and wastewater treatment at GOCOs; depot-level vehicle maintenance; and intermediate-level vehicle maintenance at troop installations. Most of the reporting Army installations have been either repair depots or ammunition manufacturing plants.

Starting in FY94 and subject to E.O. 12856, Army installations were required to undertake Toxic Chemical Release Reporting (Toxic Release Inventory or TRI) by submitting EPCRA Section 313 Form Rs to inform government officials and the public about total annual releases and offsite transfers of toxic chemicals. TRI reporting of chemical releases includes releases to air (point and fugitive emissions), water (surface and storm water), land (impoundments and landfills), underground injection, and transfers offsite. E.O. 12856 also required by 1999 a 50% reduction, from the 1994 toxic

release inventory baseline, in total releases and off-site transfer of toxic chemicals. Amounts are to be reported in pounds. OSD uses the information reported in EPCRA Section 313 Form Rs to track progress in meeting the 50% reduction goal. Reports due in Sept. 00 are for FY99 releases and thereafter for the critical year in meeting the reduction goal. New Toxic Release reduction goals for FY00 and beyond are expected soon.

Beginning 1 Jul 2000, EPCRA Toxics Release inventory (TRI) reporting applies to munitions demilitarization activities. Prior to this, OSD had exempted munitions demil from EPCRA TRI reporting. The Jul 2000 TRI report is based on munitions demil in CY 1999. In order to report, installations will need records of annual munitions demil operations (munitions NSN or DoDIC, number of rounds or lbs. net explosive weight), access to munitions constituent information, and access to emissions to air, land, or water from typical munitions demil. Installations should be aware of recent changes to the EPCRA TRI reporting thresholds for certain persistent, bioaccumulative toxic chemicals. For more information, contact your MACOM or the Army EPCRA program manager.

In accordance with E.O. 12856 and E.O. 13148, DoD activities must comply with the Emergency Planning and Community Right-to-Know Act (EPCRA). Reporting tools to calculate toxic releases from munitions were developed that utilize munitions constituent data from the Army's Munitions Items Disposition Action System, or MIDAS, and munitions usage information supplied by installation POCs. The reporting database produces the amount of EPCRA listed toxic chemicals released to environment. DoD facilities began reporting munitions demil activities to their states and EPA for CY1999 activities in July, 2000. Range training activities are required to begin reporting EPCRA TRI Section 313 releases for CY2001 activities in July, 2002. This requirement for reporting of range training activities has widespread implications for the Army because installations that perviously did not have requirements to report to EPCRA under Section 313 may be required to. Facilities that maintain active ranges (both indoors and outdoors) wil1 need to assess reporting requirements in accordance with DoD and EPA guidance.

For more information on EPCRA requirements, DoD and EPA EPCRA guidance or specific questions about EPCRA requirements, contact the U.S. Army Environmental Center.

REFERENCES

REFERENCES

AR 200-1, Environmental Protection and Enhancement, February 1997.

Executive Order 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements, August 3, 1993.

Emergency Planning and Community Right-to-Know Act (EPCRA), also known as SARA Title III.

Title 40 CFR (Code of Federal Regulations) Parts 300, 350, 355, 370 and 372.

29CFR 1910.1200, OSHA Hazard Communication Standard.

RESTORATION

INSTALLATION RESTORATION PROGRAM

OBJECTIVES

THE ARMY'S PROGRAM OBJECTIVES

- Identify, investigate, and clean up contamination from hazardous substances, pollutants, and contaminants.
- Give first priority to identifying and cleaning up the sites that present the highest risk to public health and the environment.
- Research and develop cost-effective cleanup and study methods.

COMMANDER'S ROLE

COMMANDER'S ROLE

- Verify that IRP activities comply with regulations.
- Report major IRP developments and incidents to the MACOM.
- Report discovered releases first to the MACOM, then to appropriate regulatory agencies.
- Identify resources needed for restoration.
- Serve as the lead and assign a remedial project manager.
- Review plans and recommendations for IRP actions in coordination with USAEC and the MACOM.
- Establish a Technical Review Committee or Restoration Advisory Board, as appropriate.
- Develop and maintain a community relations program.
- Report proposals for real property transactions through command channels to the Office of the Director of Environmental Programs.

INSTALLATION RESTORATION

The Army's Installation Restoration Program (IRP) was established in 1975 to identify, investigate, and clean up contamination on Army properties. The program is conducted under the auspices of the Defense Environmental Restoration Program (DERP) as established by the Superfund Amendments and Reauthorization Act (SARA) in 1986. The IRP process consists of the following steps:

PRELIMINARY ASSESSMENT/SITE INSPECTION (PA/SI)

The PA/SI identifies sites with potential hazardous waste contamination. The PA consists of a review of available historical information (also known as a records search) concerning installation activities and land use; the SI is an on-site visit to verify the findings of the PA. The SI frequently encompasses the collection of samples to facilitate an initial screening of potential problem areas.

REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) AND RECORD OF DECISION (ROD)

The RI is a detailed study that includes soil and water sampling to determine the nature and extent of contamination at a site. The RI also includes a health assessment, which estimates risks to human health and the environment as a result of the contamination. The FS identifies alternatives for remediation (or cleanup) of the site and recommends the preferred cleanup strategy, which is presented to regulators and the public in the proposed plan. Following approval of the proposed plan, a ROD is prepared describing the remedy.

INTERIM RESPONSE ACTION (IRA) AND REMEDIAL ACTION (RA)

RAs can include removing wastes from the site for off-post treatment or disposal, or containing or treating the waste on-site. IRAs, short-term activities undertaken to address environmental contamination, may be conducted at any time during the IRP process. IRAs are consistent with the final remedy selected in the ROD.

Installations work with several Army agencies during implementation of the IRP:

The U.S. Army Environmental Center (USAEC) manages the IRP for the Army.

USAEC also provides technical oversight of environmental cleanup actions at all installations.

Before required approval by the Army Surgeon General, the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) reviews the health risk assessments performed during the RI.

The U.S. Army Corps of Engineers (USACE) conducts the investigation and cleanup phases of the IRP at an installation, according to the commander's directions. The design and construction associated with cleanup of the Army's hazardous waste sites are the responsibility of the USACE as directed by the installation commander. Selected districts within each Corps division have been designated for remedial design activities. Remedial action construction in turn is carried out by the Corps of Engineers district in which the sites are located.

CURRENT REGULATIONS

CURRENT REGULATIONS

The IRP is the Army equivalent to the EPA's Superfund program, which resulted from the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980. SARA of 1986 formally requires that all IRP investigation and cleanup activities at Army hazardous waste sites comply with the procedural and substantive requirements of CERCLA. Funding for IRP activities is provided by an Army transfer account known as Environmental Restoration, Army. Under CERCLA and SARA, both private and federal hazardous waste sites are ranked and prioritized

for cleanup actions on the EPA's National Priorities List (NPL). Under SARA, Congress established the Federal Agency Hazardous Waste Compliance Docket, also known as the Federal Facility Docket. The aims of the Docket are to identify federal facilities that must be evaluated for inclusion on the NPL, and to compile and maintain information on the cleanup status of these sites.

THE NATIONAL PRIORITIES LIST

The National Priorities List (NPL) includes private and federal hazardous waste sites that, based on release or potential for release of contaminants, have been designated "high priority" for action by the EPA.

Once an installation is placed on the NPL, it may enter into a Federal Facilities Agreement (FFA), a formal agreement between the EPA, the state, and the Army that establishes objectives, responsibilities, procedures, and schedules for remediation at each installation. DoD policy calls for FFAs to be negotiated as early as possible in the RI/FS process for NPL and proposed NPL sites.

ACTIONS REQUIRED FOR NPL SITES:

- Listing on the NPL.
- Begin RI/FS within six months of placement on NPL, in consultation with the EPA and state.
- Establish a Federal Facilities Agreement (FFA) with the EPA and the state for completion of RA within 180 days of a final RI/FS.
- The EPA reviews the RI/FS.
- Send public notice and conduct public meetings on proposed RA plan.
- Issue the ROD.
- Issue public notice of final RA plan selected.
- Begin "substantial continuous physical on-site RA" no later than 15 months after completion of the RI/FS.
- Operations and maintenance on the site.
- Post closure monitoring of site.

Actions Required for Non-NPL Sites: Installations not listed on the NPL undergo the same process for investigation and cleanup, generally under state regulatory supervision. Regardless of whether the site is listed on the NPL, the Army is the lead agency responsible for conducting the necessary response action.

REFERENCES

REFERENCES

AR 200-1, Environmental Protection and Enhancement, February 1997.

USAEC, U.S. Army Environmental Restoration Programs Guidance Manual, April 1998.

USAEHA Technical Guide No. 180, Health Risk Assessment Guide for the Installation Restoration Program and Formerly Used Defense Sites, June 1990.

The Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601 *et. seq.*

Title 40 CFR Parts 300-355, 370 and 372 (CERCLA and SARA regulations).
USAEC, Installation Restoration Program Management Plan, March 1999.
USAEC, Army Guidance Concerning Restoration Advisory Boards, October 1996.
USAEC, Installation Restoration Program Action Plan Guidance, January 1999.

BASE CLOSURE PROGRAM

OBJECTIVES

- Adequately restore any contaminated real property.
- Document the environmental status of all real property transactions at the time of the transaction.
- Minimize the liability of the government (and individuals) in any real property transaction.

THE ARMY'S PROGRAM OBJECTIVES

COMMANDER'S ROLE

- Ensure that a BRAC cleanup team, consisting of an Army representative, representatives of the state regulatory agency, and the Environmental Protection Agency regional office, has been established.
- Execute the BRAC environmental restoration program.
- Task the BRAC environmental restoration program executors.
- Report program status and requirements to the MACOM.
- Coordinate regulatory and community involvement.

COMMANDER'S ROLE

BASE CLOSURE

The environmental restoration portion of the Base Realignment and Closure (BRAC) program was established to help identify, investigate, and remediate contamination on installations identified for sale under the auspices of the Base Closure and Realignment Commission Report of December 1988 and subsequent commissions, as authorized by the Base Closure Act of 1990.

The process consists of the following environmental restoration phases:

ENVIRONMENTAL BASELINE SURVEY

This study of the environmental conditions of Army-controlled properties focuses on hazardous substances or other regulated hazards. It includes former Enhanced Preliminary Assessment and Community Environmental Response Facilitation Act (CERFA) requirements.

ENVIRONMENTAL INVESTIGATION - These tools, such as the remedial investigation/ feasibility study (RI/FS) and the RCRA Facility Investigation (RFI), determine the nature and extent of contamination and recommend the best strategy for remediation or cleanup.

REMEDIAL ACTION (RA) - This is the remediation necessary to protect human health and the environment based on reasonably anticipated future land use. The BRAC Environmental Restoration Program is conducted very much like the Installation Restoration Program at active

installations and also considers environmental efforts to address closure-related compliance activities and unexploded ordnance. Environmental requirements at closing and realigning bases also includes National Environmental Policy Act (NEPA) property reuse and transfer documentation, and cultural and natural resource considerations.

CURRENT REGULATIONS

CURRENT REGULATIONS

Several regulations and memos describe environmental responsibilities during real property transactions, including: AR 200-1, Chapter 15-6; AR 385-64, Chapter 12; AR 405-10 (acquisitions); AR 405-80 (outgrants); AR 405-90 (disposals); DoD Interim Final Guidance, "Lead-Based Paint Guidelines for Disposal of Department of Defense Residential Real Property – A Field Guide," December 1999; Memorandum, Subject: Guidance for Lead-Based Paint, Hazard Management During Transfer of Army Real Property, 28 March 2000.

Title 42 USC (United States Code) 9620 (h) and Public Law 102-426, CERFA, address requirements for reporting hazardous substance activity when selling or transferring federal real property. In addition, The DoD Field Guide and Army Implementing Guidance provide guidance for preparing appropriate documentation for the Environmental Baseline Survey (EBS), Finding of Suitability to Transfer (FOST) and Finding of Suitability to Lease (FOSL). DA PAM 200-1 also contains guidance on documentation.

These regulations set the procedures for conducting and processing an EBS (which replaced the Preliminary Assessment Survey) and subsequent FOSTs for sales divesting title, transfers of jurisdiction, and permits, or FOSLs for outgrants with the exception of licenses and minor easements. The purpose of these requirements is to protect both parties involved in real property transactions and to make sure any contaminated property is adequately restored. Further information of real property transactions is provided in the section titled Real Property Transactions.

Base Closure policy for overseas bases is radically different than that of CONUS bases and is set by international treaty and the Secretary of Defense (see references).

REFERENCES

REFERENCES

AR 200-1 and DA PAM 200-1, Environmental Protection and Enhancement, February 1997.

AR 200-2, Environmental Effects of Army Actions, December 1988.

AR 385-64, Ammunition and Explosives Safety Standards, May 1988.

42 USC 9620 (h), Reporting Hazardous Substance Activity When Selling or Transferring

Federal Real Property, April 1990.

Public Law 102-426, The Community Environmental Response Facilitation Act (CERFA), October 1992.

DoD, BRAC Cleanup Plan (BCP) Guidebook, Fall 1993.

U.S. Army Environmental Restoration Programs Guidance Manual, April 1998.

DoD Interim Final Guidance, "Lead-Based Paint Guidelines for Disposal of Department of Defense Residential Real Property – A Field Guide," December 1999.

Memorandum, Subject: Guidance for Lead-Based Paint Hazard Management During Transfer of Army Real Property, 28 March 2000.

Base Closure Act of 1990.

Public Law 100-526, Defense Authorization Amendments and Base Closure and Realignment Act, October 1988.

Fiscal Year 1997, Defense Authorization Act.

Base Realignment and Closure Environmental Restoration Program Management Plans, April 1999.

The Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601 *et. seq.*

APPENDIX A: GLOSSARY OF ENVIRONMENTAL TERMS AND ACRONYMS

AAPSO	Army Acquisition Pollution Prevention Support Office
Acid Rain	Acidified precipitation resulting in acidification of lakes and destruction of forests, believed to be caused by emissions from vehicles and burning fossil fuels
ACHP	Advisory Council on Historic Preservation
ACSIM	Assistant Chief of Staff for Installation Management
AEARC	Army Environmental Awareness Resource Center
Agricultural	Use of Defense Department lands under a lease to an agency, organization or person for growing crops or grazing animals
AHERA	Asbestos Hazard Emergency Response Act (1986), requires studies to determine the extent of danger to human health from asbestos in public and commercial buildings
AIRFA	American Indian Religious Freedom Act (1978)
ALMC	U. S. Army Logistics Management College
AMEDD	Army Medical Department
AR	Army Regulation
ARPA	Archeological Resources Preservation Act
ASA(IL& E)	Assistant Secretary of the Army for Installations, Logistics, and Environment
ASA(RDA)	Assistant Secretary of the Army for Research, Development, and Acquisition
Asbestos	A group of natural minerals that tend to separate into strong, heat-resistant fibers. Used as an insulator, it is a suspected carcinogen
AST	Above ground storage tank
BCP	Base Realignment and Closure (BRAC) Cleanup Plan
BEC	BRAC Environmental Coordinator
BMP	Best Management Practice, a common sense approach when dealing with a known process. It accounts for operating and process conditions by minimizing the impact on the environment and human health
BRAC	Base Realignment and Closure
BTC	Base Transition Coordinator
CAA	Clean Air Act

Carrying Capacity	The maximum amount of activity and number of participants that a land or water area can support in a manner compatible with the objectives of an Integrated Natural Resources Management Plan, or the maximum density of wildlife that a particular area or habitat can sustain without deterioration of the habitat
Consumer Confidence Reports	Reports required for drinking water systems that list levels of regulated contaminants, maximum contaminant levels and maximum contaminant level goals. The reports must also include a statement of the health concerns for any contaminants for which there has been a violation, describe the sources of drinking water, and provide data on unregulated contaminants for which monitoring is required
CEIHOT	Center for Environmental Initiatives and Hands-On Training
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (1980), also known as "Superfund," regulates cleanup of hazardous waste sites
CERFA	Community Environmental Response Facilitation Act, outlines the process for identifying uncontaminated property
CERL	U. S. Army Construction Engineering Research Laboratories
CFCs	Chlorofluorocarbons, a family of fully halogenated hydrocarbons containing fluorine and chlorine, these environmentally harmful substances deplete the earth's stratospheric ozone layer
CFR	Code of Federal Regulations
Chlorine	Chemical used in water purification to remove bacteria
Coastal Waters	Waters subject to tidal influences
Conservation	Wise use and management of natural resources to provide public benefits and continued productivity and quality of life
CONUS	Continental United States (including Alaska, Hawaii, Puerto Rico, Guam and the Virgin Islands). Environmentally speaking, CONUS refers to any land over which the Environmental Protection Agency has jurisdiction
Critical Habitat	A designated area declared essential to the survival of a protected species under the authority of the Endangered Species Act
CRREL	U. S. Army Cold Regions Research Engineering Laboratory
CTC	Cost-to-Complete, comprehensive site-by-site estimate of the total cost for completing all environmental cleanup under the Installation Restoration Program
CTT	Closed, Transferred and Transferring. Used in connection with ranges

CWA	Clean Water Act (1972-1987), regulates discharge of wastewaters from industrial facilities and sewage treatment facilities such as publicly owned treatment works
CX	Categorical Exclusion, an exemption to National Environmental Policy Act requirements for Environmental Assessments and Environmental Impact Statements
DA	Department of the Army
DASA(ESOH)	Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health)
DASA(P)	Deputy Assistant Secretary of the Army (Procurement)
Db	Decibel, a measure of sound loudness or intensity
DCSOPS	Deputy Chief of Staff for Operations and Plans
DEH	Directorate of Engineering and Housing
DERA	Defense Environmental Restoration Account, used to fund Department of Defense environmental cleanup activities such as those performed under the Installation Restoration Program
DERP	Defense Environmental Restoration Program, the general program for environmental cleanup of DoD facilities
Discharge	Any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of a substance
Disposal	The discharge or placement of any solid waste or hazardous waste into or on land or water
DoD	Department of Defense
DOI	Department of Interior
DOL	Directorate of Logistics
DOT	Department of Transportation
DPTM	Directorate of Plans, Training and Mobilization
DPW	Directorate of Public Works
DMR	Discharge Monitoring Report
DRMO	Defense Reutilization and Marketing Office
DSERTS	Defense Site Environmental Restoration Tracking System, Windows-based personal computer program used Armywide to manage, track, and query data on restoration activities
DSHE	Directorate (Department) of Safety, Health and Environment
DSN	Defense System Telecommunications Network
EA	Environmental Assessment, study required by NEPA to determine whether significant environmental impacts are expected from a proposed action; or

EA	Environmental Awareness: the ITAM program to teach soldiers wise use of training lands
EBS	Environmental Baseline Survey, replaces the Preliminary Assessment Screening (PAS) and covers CERFA requirements
ECAR	Environmental Compliance Assessment Report; summary of an Installation's compliance status, an installation's selective corrective actions, and funding necessary to achieve compliance, prepared by an external assessment team in conjunction with the installation environmental staff
ECAS	Environmental Compliance Assessment System, assessment program to identify an installation's compliance deficiencies and suggest corrective actions to fix the deficiencies
EIS	Environmental Impact Statement, report required by NEPA that describes the environmental consequences of proposed actions
ELS	Environmental Law Specialist
Emission Standard	Permissible limit of air emissions established by federal, state, and local authorities
Endangered Species	Species that are in danger of extinction throughout all or a significant portion of their range
ENF	Enforcement Action
EPA	U. S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act (1986), also known as SARA Title III, provides local governments with information about possible chemical hazards in the community
EPR Report	Environmental Program Requirements Report, the primary way Army managers program and plan the resources needed to execute the environmental program in a manner consistent with congressional, DoD, and service priorities
EQCC	Environmental Quality Control Committee
EQR	Environmental Quality Report, provides quarterly information on the compliance status of each environmental program, tracks quantities of hazardous waste generated, and tracks costs associated with environmental permit fees and fines
EQT	Environmental Quality Technology
ER,A	Environmental Restoration, Army; an account used to fund Army environmental cleanup activities such as those performed under the Installation Restoration Program
ESA	Endangered Species Act (1973), legislation that protects fish, wildlife and plants that have been determined to be threatened or endangered

Federal Facilities Docket	Method developed under the Superfund Amendments and Reauthorization Act (SARA) to identify and gather information on federal facilities that manage hazardous wastes or contain contamination from hazardous substances
Federal Register (FR)	A daily federal publication that formally documents proposed and final regulations and federal agency, commission, and committee information.
FFA	Federal Facilities Agreement; an agreement between the Army, the EPA and state regulators that addresses the completion of all necessary remedial actions at an installation
FFCA	Federal Facility Compliance Act
FFDCA	Federal Food, Drug, and Cosmetic Act (1938); governs pesticide residue levels in food or feed crops
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act (1972), regulates the licensing or registration of pesticides and establishes training standards for personnel who apply pesticides
Flood Plain	Flat area adjacent to a river or stream that is subject to flooding
FNSI	Finding of No Significant Impact, also known as a FONSI, prepared if the findings of an Environmental Assessment indicate that no significant environmental or socioeconomic impacts are expected from the proposed project, and therefore an Environmental Impact Statement is not required. It is distributed for public review and comment
FOSL	Finding of Suitability to Lease
FOST	Finding of Suitability to Transfer
FOTR	Federally Owned Treatment Works
Friable Asbestos	Asbestos that can be crumbled in the hand; its microscopic fibers create a health hazard
FUDS	Formerly Used Defense Sites
FWS	U. S. Fish and Wildlife Service
FY	Fiscal Year
Game Species	Fish and wildlife that may be harvested in accordance with federal and state laws
GIS	Geographic Information System
GOCO	Government-owned, contractor-operated
Groundwater	Water contained in underground reserves or aquifers
Halons	A family of environmentally harmful fully halogenated hydrocarbons containing bromine that deplete the Earth's stratospheric ozone layer
HAP	Hazardous Air Pollutant

Hazardous Materials	Also known as HM and HAZMATS, chemicals that have been determined by the Secretary of Transportation to present risks to safety, health, and property during transportation
Hazardous Substance	An element, compound, or mixture that when discharged into land or water poses an imminent and substantial threat to public health and welfare
Hazardous Waste	Also known as HW, waste that because of its quantity, concentration, or characteristics may pose a substantial hazard to human health or the environment
HAZCOM	Hazard Communication. The responsibilities of managers concerning possible hazards in the workplace and notification of hazards and necessary precautions to their employees
HAZMIN	Hazardous Waste Minimization
HMCC	Hazardous Materials Control Center
HQDA	Headquarters, Department of the Army
HSMS	Hazardous Substances Management System
HSWA	Hazardous and Solid Waste Amendments (1984) to the Resource Conservation and Recovery Act (RCRA), include regulations on waste minimization, land disposal of hazardous wastes, and underground storage tanks
I&M	Inspection and Maintenance
IAG	Interagency Agreement
IAP	Installation Action Plan, key document in the management and execution of the Installation Restoration Program (IRP) outlining the total multi-year integrated, coordinated approach to achieving an installations restoration goals
ICAP	Installation Corrective Action Plan, a dynamic document created by installations identifying ECAS funding status and tracking corrections
ICRMP	Integrated Cultural Resources Management Plan
INMP	Installation Noise Management Program, procedures and methods used to manage the impacts of noise on post and off post. It incorporates the former Installation Compatible Use Zone (ICUZ) program
Incineration	Disposal of waste materials through controlled burning
INRMP	Integrated Natural Resources Management Plan
IOSC	Installation On-Scene Coordinator
IPM	Integrated Pest Management
IPMP	Installation Pest Management Plan
IMPC	Installation Pest Management Coordinator
IRA	Interim Response Action
IRP	Installation Restoration Program

IRT	Installation Response Team
ISR	Installation Status Report ISR Environment provides a macro-level view of an installation's environmental program, helping commanders justify and prioritize resources
ISWM	Integrated Solid Waste Management
ITAM	Integrated Training Area Management
LBP	Lead-based paint
LCTA	Land Condition Trend Analysis, the ITAM program to inventory and monitor natural resources, document resource conditions, and assess the ability of the land to withstand impacts from training and testing
LEPC	Local Emergency Planning Committee, established in local municipalities to prepare a plan for responding to releases of hazardous substances and informing citizens of those major facilities managing hazardous substances in the area
LRA	Local Reuse Authority
LRAM	Land Rehabilitation and Maintenance; ITAM program to restore the land and enhance training and testing realism through revegetation, erosion control, and land reconfiguration
MACOM	Major Army Command
MACT	Maximum Available Control Technology, for new and reconstructed plants MACT is better than or equal to the emission control achieved in practice by the single best controlled similar plant; for existing plants, MACT is better than or equal to the average emissions of the best controlled 12 percent of similar plants
MBTA	Migratory Bird Treaty Act, federal law enforcing international conventions for the protection of migratory birds
MCL	Maximum Contaminant Level, the allowable level of certain organic and inorganic constituents in drinking water
MILSPECs	Military Specifications
MR	Military Munitions Rule, regulations for determining when military munitions become hazardous waste, and providing for safe storage and transportation of such wastes before disposal
MOM	Measure of Merit, established by DoD (usually because of a regulatory requirement, Executive Order, or Congressional mandate) for specific environmental programs stating specific measurable objectives
Monitoring	Analytical sampling or measurement of a contaminant
MSDS	Material Safety Data Sheet, information sheet describing the potential hazards, chemical or physical properties, and health effects of a substance
NAAQS	National Ambient Air Quality Standards, ambient air standards set by the EPA for designated pollutants, and achieved through State Implementation Plans (SIPs)

NAGPRA	Native American Graves Protection and Repatriation Act of 1990
NCP	National Contingency Plan, regulations that implement CERCLA provisions for responding to releases of oil and hazardous substances, including cleanup of National Priorities List sites
NEPA	National Environmental Policy Act (1969), requires all federal agencies to consider environmental and socioeconomic effects of proposed major actions through preparation of a Record of Environmental Consideration, Environmental Assessment, or Environmental Impact Statement
NESHAP	National Emission Standards for Hazardous Air Pollutants, allowable emissions of certain hazardous pollutants into ambient air
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
Nitrates	Essential soil nutrients that also can be pollutants
NMFS	National Marine Fisheries Service
NOI	Notice of Intent, a public notice published in the Federal Register that an Environmental Impact Statement will be prepared and considered. It briefly describes the proposed action and alternatives and describes the proposed scoping process (such as the time and location of the public meetings)
Noise Control Act	The 1972 law regulating noise emissions from commercial products such as transportation and construction equipment
Nonhazardous Solid Waste	Solid wastes that pose no significant threat to human health or the environment, such as household trash and office waste
NOV	Notice of Violation, formal written documentation of environmental noncompliance provided, by a regulatory agency to an installation
NOx	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System, program regulating wastewater discharges to surface waters
NPL	National Priorities List, prioritized list of sites to be cleaned up under CERCLA
O&M	Operation and Maintenance
OB/OD	Open Burning/Open Detonation
OCONUS	Outside the Continental United States from an environmental standpoint referring to activities on land that is not in EPA's jurisdiction (for example, Europe, Korea, Japan)
ODC	Ozone-Depleting Chemical
ODS	Ozone-Depleting Substance
OEBGD	Overseas Environmental Baseline Guidance Document

ODEP	Office of the Director of Environmental Programs
On-Scene Coordinator	Federal official in charge of removal efforts at hazardous substance discharge sites
OPP	Office of Pesticide Programs, a division of the EPA
OSHA	Occupational Safety and Health Administration, the federal agency responsible for regulating worker safety, establishing guidelines and training requirements for workers at hazardous waste sites, and operations using hazardous materials
P2 or P^2	Pollution Prevention
PAO	Public Affairs Office(r)
PAS	Preliminary Assessment Screening Replaced by the Environmental Baseline Survey (EBS)
PA/SI	Preliminary Assessment/Site Inspection, first phase of the Installation Restoration Program, designed to identify potential sites with hazardous waste contamination
PCBs	Polychlorinated Biphenyls, toxic, halogenated organic compounds not easily degraded in the environment
pCi /L	Picocurie per liter, unit of measurement for radioactive materials in air, used for measurement of radon concentrations in buildings
PDSC	Professional Development Support Center (Army Corps of Engineers)
Pesticide	Any product that kills or controls pests
pH	A measure of a liquid's acid/base properties
PLS	Planning Level Survey
POL	Petroleum, Oil and Lubricant
POM	Program Objective Memorandum
PVNTMED	Preventive Medicine Activity
PWTB	Public Works Technical Bulletin
RA	Remedial Action, the cleanup phase for hazardous waste sites under CERCLA for the Installation Restoration Program
RAB	Restoration Advisory Board, a forum of government and community representatives that provides input to the installation commander concerning cleanup at military installations
Radon	A colorless, odorless, radioactive by-product from the natural degradation of uranium
RCRA	Resource Conservation and Recovery Act (1976), establishes guidelines and standards for hazardous waste generation, transportation, treatment, storage, and disposal. Amended by the Hazardous and Solid Waste Amendments (HSWA)

RCS	Report Control Symbol
REC	Record of Environmental Consideration; also Regional Environmental Coordinator
Recycling	The process of transforming recovered materials into new or usable products
	Federal regional site that controls pollution emergency response activities
Remediation	Cleanup of a toxic or hazardous waste site
REO	Regional Environmental Office
RFI	RCRA Facility Investigation, RCRA equivalent of a CERCLA remedial investigation
RI/FS	Remedial Investigation/Feasibility Study, second phase of the Installation Restoration Program where the nature and extent of contamination of a hazardous waste site are determined and cleanup strategies are analyzed
RMW	Regulated Medical Waste
ROD	Record of Decision, official EPA document detailing the strategy for cleanup of a hazardous waste site under the Installation Restoration Program
RRSE	Relative Risk Site Evaluation, uniform categorization system that ensures that restoration work across DoD is completed first at sites posing the most risk to human health and the environment
SARA	Superfund Amendments and Reauthorization Act (1986), establishes standards for cleanup activities and stipulates the conditions for off-site disposal of wastes
SDWA	Safe Drinking Water Act (1974), sets drinking water standards for any pollutants that may have an adverse effect on human health or negatively affect the aesthetic quality of drinking water
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan, developed under the Clean Air Act to delineate methods to achieve the National Ambient Air Quality Standards
SJA	Staff Judge Advocate
SNAP	Significant New Alternatives Policy
SOFA	Status of Forces Agreement
SOP	Standard Operating Procedure
SPCCP	Spill Prevention, Control and Countermeasures Plan. Document that inventories oil and hazardous substance storage and provides procedures to prevent spills and releases of these products
Surface Water	Above ground water contained in rivers, streams and the like
SWMU	Solid Waste Management Unit, any discernible waste management unit at a RCRA facility from which hazardous constituents might migrate, irrespective of whether the unit was intended for the management of solid waste

TASC	Training and Audiovisual Support Center
TB	Technical Bulletin
TBMED	Medical Technical Bulletin
TCA	Methyl chloroform, an industrial solvent
TG	Technical Guide
Threatened Species	Species likely to become endangered within the foreseeable future throughout all or a significant portion of their range
TM	Technical Manual
TRADOC	U. S. Army Training and Doctrine Command
TRI	Training Requirements Integration, the ITAM program to integrate mission requirements with the carrying capacity of the land; or
TRI	Toxics Release Inventory
TSCA	Toxic Substances Control Act of 1976; regulates PCBs, CFCs and asbestos, requiring testing of chemical substances entering the environment and where necessary regulating releases
TSD	Treatment, Storage, Disposal; hazardous waste operations requiring permits under RCRA
TSDF	Treatment, Storage, Disposal Facility; a facility involved in hazardous waste TSD operations
USACE	U. S. Army Corps of Engineers
USACHPPM	U. S. Army Center for Health Promotion and Preventive Medicine
USAEC	U. S. Army Environmental Center
UAES	U. S. Army Engineer School
USC	United States Code
UST	Underground Storage Tank; below or in-ground tank, storing oil or hazardous substances, regulated under RCRA
VOC	Volatile Organic Compound
UXO	Unexploded Ordnance
WES	U. S. Army Waterways Experiment Station
Wetlands	Collective term for marshes, swamps, and similar areas that develop between open water and dry land
Watershed	defined as an area dividing areas drained by different rivers or a river system, and areas drained by a river or river system; a distinct ecosystem presenting unique multi-media environmental management considerations
Yellow Book	EPA document titled Federal Facilities Compliance Strategy

APPENDIX B: QUESTIONS FOR YOU TO ASK YOUR ENVIRONMENTAL MANAGEMENT TEAM

QUESTIONS FOR YOUR ENVIRONMENTAL COORDINATOR

STAFF STRUCTURE

Where in the installation staff structure do you work?

How do you bring serious issues to my attention?

How is your staff structured?

Does your organization structure include natural resources, cultural resources, and pest management functions? If not, where are they located?

Do you have sufficient staff and resources to ensure environmental compliance?

PHYSICAL PLANT

Is our environmental office sufficiently automated? Do we have a Geographic Information System (GIS)?

Do you have a dedicated machine for each reporting system? Can you access the Internet, send and receive electronic mail?

Do you review DPW work orders for environmental issues?

Do you participate in annual work planning for DPW/Master Plans and Directorate of Plans, Training and Mobilization?

OPERATIONS

What is our working relationship with local, state, and federal regulators? When did we last meet with them?

How do we manage our National Environmental Policy Act (NEPA) compliance? Are we in compliance with NEPA? Who prepares Records of Environmental Consideration (RECs) and Environmental Assessments (EAs)? Have we made any Environmental Impact Statements (EISs) in the last three years? How do we fund mitigation?

REPORTING

When will I see the next ISR Environment results? How did the last commander use the ISR Environment information?

What Environmental Program Requirements (EPR) projects have we submitted?

Are we having any difficulties getting these approved? Are these projects reflected in our Planning, Programming, Budgeting and Execution System, (Schedule 11) and Command Operating Budget? What other sources of funding do you use?

How are we requesting funding from higher headquarters to continue ongoing projects? Are we receiving the funding required to continue current work projects?

Do we have any environmental projects that require construction? Are any of them MC,A (Military Construction, Army) projects?

Do any non-environmental projects have environmental components? How are we funding these?

EQCC

How often does the Environmental Quality Control Committee meet? How do we keep EQCC informed and interact with them?

What organizations are members? Which should be a member that is not?

Does the EQCC act on the full range of environmental issues?

What other groups address issues that the EQCC doesn't?

What installation environmental issues are important to local community organizations and groups?

How do we keep the EQCC informed and interact with them?

COMPLIANCE

What is our compliance status?

Do we have any current Notices of Violation (NOVs) or Enforcement Actions (ENFs)? What is the status of each? Are any other Army agencies assisting us in resolving them?

Are we under any compliance agreements or consent orders? Do we currently have any compliance agreements or consent orders?

Show me the most recent Environmental Quality Report (EQR).

When was our last Environmental Compliance Assessment System (ECAS) external inspection? Who did the assessment? What were the results? How are we managing corrective actions?

Are we conducting internal compliance inspections?

Do we have any other compliance status issues?

HAZARDOUS MATERIALS AND WASTE MANAGEMENT PROGRAM

How much hazardous waste do we generate each month?

Have we experienced any problems with hazardous waste disposal?

How do we ensure all HM/HW handlers are properly trained? Do we do courtesy inspections of units that use HM and generate HW?

Are we implementing a Hazardous Material Control Center?

Are we implementing the Hazardous Substance Management System?

How are we controlling and reducing our inventory of hazardous materials?

Do we use DRMO to dispose of our hazardous waste? Are there any issues?

If not DRMO, who do we use to dispose of hazardous waste?

How do we protect ourselves from future cleanup liability?

What units and processes are the major users of hazardous materials?

Where and how much hazardous material is stored on our installation? Has the Fire Department been informed of the types, quantities, and locations of hazardous materials stored on our installation?

What are we doing to reduce the amount of hazardous material on our installation?

Do we have a RCRA Part B Permit or is a RCRA Part B Permit application pending approval? Do we need one?

Do we have a corrective action requirement to fulfill under the RCRA Part B Permit?

How many Solid Waste Management Units (SWMUs) are included in the corrective action requirement?

How are corrective actions being funded?

What issues do you have with our tenant organizations?

POLLUTION PREVENTION PROGRAM

What is the status of our pollution prevention program?

What are our pollution prevention goals?

What are we doing to attain these goals?

Has hazardous waste disposal increased or decreased over the last few years? Why?

Has hazardous material use increased or decreased over the last few years? Why?

When was the installation Pollution Prevention Plan last revised?

CONSERVATION PROGRAM

Are we required to have an Integrated Cultural Resources Management Plan (ICRMP) and, if so, is it current and approved?

Are we required to have an Integrated Natural Resources Management Plan (INRMP) and, if so, is it current and approved?

If required, how were the ICRMP and INRMP integrated with the installation's mission and other installation activities and programs?

Do we have a current and approved Installation Pest Management Plan (IPMP)?

Have we done Threatened and Endangered Species surveys?

Do we have any Threatened and Endangered Species? If yes,

Do we have a current Endangered Species Management Plan for all threatened and endangered species?

Have we completed all applicable natural and cultural resources planning level surveys?

Do we have the proper National Environmental Policy Act (NEPA) documentation for our various conservation program plans?

How are natural and cultural resources issues coordinated, considered, and addressed by military, civilian, and contract personnel?

How are these issues integrated into land use activities?

What is our compliance status with laws governing cultural and natural resources management?

With which Native American tribes does the installation have government-to-government relationships?

What cooperative agreements do we have? Which ones have been implemented?

What is the status of the installation's relationships with local private and public landowners?

Are we using partnership opportunities effectively?

How are we coordinating operations of mutual concern, such as wildfire or flood control, with other landowners and public agencies?

Are there any conflicts between the military mission and management of conservation resources?

Do we have hunting, fishing, forestry, and agricultural outleasing programs and, if so, are they compatible with our mission?

Is there coordination with the Fish and Wildlife Service?

What natural and cultural resource management staff do we have supporting military operations? Is this adequate or inadequate? Why?

Do we have an Integrated Training Area Management (ITAM) program? If so, how is the Conservation Program staff involved in the ITAM planning and execution process?

What natural and cultural resources management information do you routinely provide the Directorate of Plans, Training, and Mobilization (DPTM) range operations?

How often do we inspect outleased lands to ensure compliance with maintenance and conservation requirements?

Is there a possibility of environmental contamination on the agricultural or grazing lease sites?

Could pollution be migrating on or off these agricultural or grazing leases sites?

Is there a plan for resolving environmental problems associated with agricultural and grazing activities?

Who certifies the condition of land before it is excessed?

Do we have soil erosion or sediment non-point pollution problems?

Do we know what our erosion problems are and do we have a plan to control them?

ENVIRONMENTAL RESTORATION

Is our installation on the National Priorities List (NPL) or the Federal Facilities Docket (FFD)?

How many sites on the installation are being addressed under the Installation Restoration Program (IRP)?

What is the status of these sites?

Are there any off-post contamination concerns at the installation?

Have we completed the Preliminary Assessment/Site Inspection (PA/SI)?

Is a Remedial Investigation/Feasibility Study (RI/FS) under way?

Do we have a Federal Facilities Agreement?

What level of community relations activities involve the installation's restoration program? Is there community interest in establishing a Restoration Advisory Board (RAB)? Have we established a RAB? Does a Technical Review Committee exist (separate from a RAB)?

Does the Cost-to-Complete (CTC) estimate reflect all planned restoration activities at the installation?

Is the Installation Action Plan (IAP) or Base Realignment and Closure (BRAC) Cleanup Plan abstract up-to-date? Does it reflect the current status of the Defense Sites Environmental Restoration Tracking System (DSERTS) database, the CTC estimates by site and the schedule for all the installation's restoration activities?

Have Relative Risk Site Evaluations (RRSE) been determined for all of our required sites? Does the installation have any not evaluated sites? What is the planned funding for not evaluated sites?

What is the current completion date for all restoration activities at the installation?

Are there any significant problems for the installation caused by the Army's execution strategy and funding shortfalls? Have regulatory agreement schedules been renegotiated to compensate for the execution strategy and funding shortfalls?

BRAC INSTALLATIONS ONLY

Does appropriate coordination occur between the BRAC Environmental Coordinator (BEC), the Base Transition Coordinator (BTC) and the Local Reuse Authority (LRA)?

OTHER PROGRAMS

Are we in compliance with the Safe Drinking Water Act?

Do we provide drinking water to anyone off-post?

RECYCLING

Do we have any cooperative programs with other organizations (doing resource recovery or recycling)?

Do we have an installation recycling program?

WASTEWATER

Do we have any wastewater discharge permits? What is their status?

Do we meet our permit discharge limitations?

HAZARDOUS SUBSTANCE SPILLS

Do we have a current Spill Prevention, Control and Countermeasures Plan (SPCCP)?

Does the SPCCP include tenant activities?

Has the SPCCP been reviewed by a registered engineer?

When was the SPCCP last tested?

What deficiencies were noted during the test?

What is the status of corrective actions?

How many reportable spills have we had the past year?

Were all spills reported properly?

Who is our representative to the Local Emergency Planning Committee (LEPC)?

UNDERGROUND AND ABOVE GROUND STORAGE TANKS (USTs & ASTs)

How many USTs do we have? How many have been temporarily closed? When will those be permanently closed?

Have they all been tested? Is the monitoring equipment working properly? How many of the leak detection and corrosion protection systems are functioning properly?

How many tanks are leaking?

What is the status of corrective actions for leaking tanks?

Have we budgeted funds for testing and removing tanks and possible cleanups?

NOISE MANAGEMENT

Do we have any environmental noise problems?

Do we have an Installation Noise Management Program (INMP)?

Do we have current environmental noise contour maps for this installation?

SOLID WASTE

Do we have landfills?

Do we have proper operating permits for our landfills?

What are we doing to reduce our number of landfills?

What are we doing to reduce solid waste?

ENVIRONMENTAL TRAINING

Have our people been properly trained to do their jobs? To do their non-environmental jobs in an environmentally compliant manner?

Do we have an environmental awareness training program?

Has all training required by law or Army regulation been completed? Have records been retained?

How many people need training?

ASBESTOS, RADON, AND LEAD HAZARD

Have all of our buildings been inspected for asbestos? Do any buildings require abatement? Is there an Asbestos Management Plan?

How many buildings have been tested for radon? For lead hazards?

Do any require remediation?

AT OCONUS INSTALLATIONS

What are our unique environmental policies?

What programs do we have that parallel ___*(specific* CONUS)___ program(s)?

QUESTIONS FOR YOUR PUBLIC AFFAIRS OFFICER

Do local communities know that our installation has an environmental program?

How is our environmental program perceived in the community?

What installation environmental issues are important to local community organizations or groups?

How do we inform and interact with the community?

What types of communication tools are being used to inform the public about our environmental program?

What is the Public Affairs Office (PAO) doing to increase our work force's environmental awareness?

Does the in-briefing for new employees cover environmental programs?

What is our relationship with local officials regarding environmental issues?

How is our relationship with the congressional delegation?

What is our relationship with the media on environmental issues?

What organized environmental groups are interested in our installation?

What is our relationship with them?

Is PAO a standing member of the EQCC?

Have local communities identified any common concerns about our installation

cleanup program?

How does the PAO release information addressing those concerns?

What environmental "good news" stories can we release to local newspapers or TV stations?

Do we have a Restoration Advisory Board (RAB)? How often does it meet? What are the key issues addressed by the RAB? How do the RAB members work with each other? How are disputes resolved?

(If the installation has not formed a RAB): Have we surveyed and documented community interest in forming a RAB? How did we publicize that we are seeking community interest in a RAB?

Do we have a public involvement and response plan for our DERP projects? Is it being implemented?

QUESTIONS FOR YOUR LEGAL OFFICE

What environmental law references are available in your office?

Has an environmental regulatory agency fined the installation in the past three years?

Does the office coordinate with key environmental personnel to ensure timely coordination of environmental issues?

Do we have any Notices of Violation (NOVs)? What is the status of each? Are any other Army agencies assisting us in resolving them? Are we operating under any compliance order or consent decree?

Who is our Environmental Law Specialist (ELS)? What training and experience does he or she have in environmental law? What training and experience does he or she have in _____(*fill in local environmental issue*)_____ laws?

How is the ELS actively involved in the planning, execution, and monitoring of our environmental programs?

Has the ELS consulted formally with the U.S. Fish and Wildlife Service regarding endangered species?

Has the ELS been involved in the preparation of Endangered Species Management Plans?

How is the ELS involved in integrating environmental protection and preservation activities into the planning and execution of our mission?

Does the ELS review our environmental permits for appropriateness of standards and environmental fees and taxes?

Does the ELS review all command responses to local, state, and federal regulators?

Does the ELS actively participate in environmental inspections and audits, and review inspection standards and inspection reports?

How does the ELS participate in the Environmental Compliance Assessment System (ECAS)?

What does the ELS do when regulators inspect our compliance posture? Does the ELS review responses to regulators, participate in negotiations, and review NEPA documents before publication?

QUESTIONS FOR YOUR SAFETY OFFICE

Are Safety Personnel trained properly to maintain adequate knowledge of OSHA regulations and how those are applicable to the installation's environmental issues?

Are we using the Hazardous Substance Management System (HSMS) to comply with Occupational Safety and Health Administration (OSHA) and Hazard Communication (HAZCOM) regulations?

Has everyone received the required OSHA training? How are the HAZCOM and other OSHA programs coordinated with the environmental plans and programs for hazardous waste?

Is there a HAZMAT inventory for *all* facilities on the installation? Has that information been reported to the local fire department and/or emergency response personnel?

Are accident prevention controls in place in operations that may threaten or damage the environment if an accident occurred?

Has an Emergency Contingency Plan been implemented on all sites? Are personnel properly trained and aware of proper procedures in the event of an emergency?

Are we following Army regulations to protect the environment from the effects of ammunition, explosives, or chemical agent contamination of real property?

What procedures and contingency plans do we have in effect for UXO and Chemical Munitions events.

QUESTIONS FOR YOUR DIRECTORATE OF PLANS, TRAINING, AND MOBILIZATION (DPTM)

How do training activities meet National Environmental Policy Act (NEPA) compliance requirements?

How do activities get cleared through a Record of Environmental Consideration (REC) under AR 200-2?

How do we address activities requiring an Environmental Assessment (EA)? Have any major range projects or mission changes required an Environmental Impact Statement (EIS)?

Do we have an Integrated Training Area Management (ITAM) program? How is it staffed? How are natural resources management and range operations involved in the ITAM program?

What can the installation do to sustain training lands through the ITAM program?

How do we manage ITAM dollars?

What were the installation requirements in the last ITAM Work Plan to MACOM headquarters? What is the process for approving the ITAM Work Plans and expenditure of ITAM funds?

What is our current funding for the ITAM program compared to the installation's requirements?

Show me the last Installation Status Report comments for the ITAM program and training facilities.

Have you developed the Training Requirements Integration (TRI) component of ITAM by linking the Range Facility Management Schedule System with the installation's Geographic Information System (GIS)? Do installation trainers have the opportunity to obtain GIS products for planning unit or school training?

Explain the ITAM Environmental Awareness plan for the installation.

How does the installation prioritize and execute Land Rehabilitation and Maintenance (LRAM) projects? What percentage of available ITAM funds is spent on LRAM projects?

QUESTIONS FOR THE PREVENTIVE MEDICINE ACTIVITY

Do Preventive Medicine (PVNTMED) Activity personnel need environmental training? Do environmental personnel need preventive health and/or health education training?

Do we use the Hazardous Substance Management System (HSMS) to maintain records of hazardous materials being used by activities, as well as the training and equipment required for personnel using these hazardous materials?

Do the PVNTMED Services and DPW/DSHE personnel meet regularly?

Do preventive medicine and veterinary health technicians routinely inspect warehouses and other food storage sites for proper sanitation and evidence of insects, rodents, and other pests?

Do pesticide applications and other treatments for medically important pests (including cockroaches in food-handling areas) follow your recommendations?

Are all pesticide applicators and other installation personnel who are routinely exposed to pesticides enrolled in medical surveillance, health education, and respiratory protection (occupational

health) programs?

Do we have a medical monitoring program? How is regulatory-mandated medical monitoring, record keeping and reporting coordinated?

Are installation personnel experiencing any work-related health problems?

Who investigates work-related health issues? Who implements work-related health corrective actions? Are work-related health issue corrective actions coordinated with both the Environmental Office and the Safety Office?

What is the PVNTMED involvement in the Technical Review Committee?

Are we in compliance with the medical requirements of Title 29 CFR Part 1910.120 and AR 40-5 (Preventive Medicine–August 1986)?

QUESTIONS FOR YOUR NATURAL RESOURCES MANAGER

How do our reimbursable programs (such as forestry, agriculture, and grazing) enhance mission opportunities and ecosystem management? How do they improve biodiversity?

Have we made efforts to reduce the intensity and cost of grounds maintenance?

What are we doing in the way of environmental and economically beneficial landscaping practices?

Could pollution be migrating either on or off these agricultural or grazing leases sites? If so, is there a possibility of environmental contamination on the agricultural or grazing lease sites?

Do we have an soil erosion or sediment non-point pollution problems? Do we know what our erosion problems are and do we have a plan to control them?

Are there any conflicts between the military mission and management of natural resources?

Are you maintaining a close relationship with the U.S. Fish and Wildlife Service, and/or the

National Marine Fisheries Service?

Are you maintaining an agressive approach to ESA compliance - for example: participation in recovery plans, critical habitat decisions and listing decisions and monitoring the Federal Register?

Are you in coordination with, and is the ITAM Program compatible with, the INRMP?

QUESTIONS FOR YOUR CULTURAL RESOURCES MANAGER

How do you coordinate with other staff elements and tenants to plan for projects and activities that may affect cultural resources?

Do we have a current Integrated Cultural Resources Management Plan (ICRMP)? Is it on schedule and adequately funded? Have planning level surveys for cultural resources been completed?

Are cultural resources included in Integrated Natural Resources Management Plans and the Integrated Training Area Management (ITAM) program?

Is cultural resource management (including Native American issues) coordinated with installation training and testing activities, master planning, and natural resource and endangered species management planning and programming?

Who are the staff Cultural Resources Manager and Coordinator for Native American Affairs? What are his or her (or their) qualifications?

With which Native American tribes has the installation established a relationship?

What is the installation's history with specific Native American tribal governments?

What consultation procedures has the installation developed to address inadvertent discoveries of cultural items outlined in the Native American Graves Protection and Repatriation Act (NAGPRA)? Have NAGPRA Comprehensive Agreements been executed with appropriate tribes?

Are Native American sacred sites present? If so, how do we protect Native American rights of access to sacred sites, and maintain confidentiality of site locations?

When can I meet with tribal government heads, and what protocols should I know when I do?

Do we have a National Historic Preservation Act (NHPA) Section 106 Programmatic Agreement with the State Historic Preservation Office (SHPO) and Advisory Council on Historic Preservation? Is it being implemented?

Are historic buildings and structures maintained and repaired according to the NHPA and the Interior Secretary's Standards for Rehabilitation? Have maintenance and repair guidelines been incorporated into our Section 106 Programmatic Agreement?

Are the installation's military police, legal, public affairs, and fish, game, and recreation management staffs familiar with the requirements of the Archeological Resources Protection Act (ARPA)? Have they been adequately trained to fulfill their roles in detecting and reporting ARPA violations?

Are archeological collections and associated records maintained according to standards defined in Title 36 CFR Section 79? Does the installation maintain a curation facility, or does it use another Institution's repository?

QUESTIONS FOR DPW ON PEST MANAGEMENT

Do we have a current, approved Installation Pest Management Plan?

Does it accurately address all aspects of Army Pest Management Program requirements, and does it reflect the current way pest control operations are being conducted on the installation?

Who is my designated installation pest management coordinator (IPMC)?

Has the designated IPMC received the necessary training required to perform his or her responsibilities?

Does my IPMC identify installation pest management training needs requirements for both newly hired applicators and certified applicators?

Does my IPMC maintain accurate records with respect to all pesticide applications conducted

on the installation to include in-house government operations, contract pest control services, and pest control being conducted by tenant activities such as golf course activity, self help, agricultural out leases, etc.?

Are government employees who apply pesticides properly certified, and recertified every three years, in the appropriate EPA categories in which their work is being done?

Are contract pesticide applicators who apply pesticides on the installation properly certified, and recertified every three years, in the appropriate EPA categories for which the work is being done at the time the contract is let?

What kind of contracts are currently in place on the installation (Base-Ops, IMPAC cards)? Have they been properly reviewed by the MACOM Pest Management Consultant (PMC)?

Do I have a trained Quality Assurance Evaluator (QAE) to oversee the interest of the DoD/ Army program requirements?

Are pesticides being applied by contractors being properly recorded and reported to my IPMC?

Is the pest management program based on integrated pest management and ways to reduce our reliance on pesticides? Are pesticide applications based on surveillance?

Do we have an effective self-help program?

What are my installation's pesticide storage and mixing requirements? Do our pesticide mixing and storage facilities meet established criteria? Do the current facilities meet the Army's "best pest management practices" guidelines?

What are the latest ECAS findings with respect to my installation pest management program?

Are we in compliance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)?

Does my installation pest management program incorporate the requirements of EO 13112?

Has my installation been able to reduce its pesticide usage by 50% from the installation FY 93 baseline figure and still meet its mission requirements?

QUESTIONS FOR YOUR DIRECTOR OF LOGISTICS

What programs do we have for hazardous material procurement and inventory control?

Have we established a Hazardous Material Control Center? What are our plans for a pharmacy system? Are we implementing the Hazardous Substance Management System (HSMS)?

How do we control and reduce our inventory of hazardous materials?

How do we identify and account for hazardous materials purchased locally?

Do we have adequate storage facilities for hazardous materials? Are warning signs and labels posted and Material Safety Data Sheets (MSDS) available?

Do we have proper safety materials, protective clothing, and equipment on hand for emergency cleanup, treatment, and decontamination, if needed?

How do you address hazardous waste requirement issues?

Are any issues specifically related to Defense Reutilization and Marketing Office (DRMO) performance?

QUESTIONS FOR OTHER STAFF ELEMENTS

FOR THE DIRECTOR OF PERSONNEL AND COMMUNITY ACTIVITIES

Are your activities in compliance with the Clean Air Act (such as in the auto, craft, or ceramics shops); lead hazard rules (at skeet and trap ranges); and FIFRA (with herbicides and pesticides on the golf course)?

FOR DIRECTOR OF INFORMATION MANAGEMENT

How are we recycling or disposing of copier and laser printer toner cartridges?

Are we using recycled paper?

Do we have any Web-based environmental reporting system connectivity issues? What are you doing about them?.

Are we using digital or other nonchemical photo processing methods?

FOR THE AAFES MANAGER

How do you manage and dispose of waste oil and solvents from the AAFES garage?

How do you manage and dispose of herbicides and pesticides from the garden centers?

What recycling systems are in place at the “self-help” centers?

COMMANDER’S QUESTIONS FOR UNITS

Brigade, battalion and company commanders may want to ask the following questions when touring their units:

Do you have hazardous waste and spill response annexes in your garrison or motor pool SOP and field TSOP?

Who is your unit environmental compliance officer?

TO COMPANY COMMANDER:

Do you incorporate the principle of TC 5-400 into training management and preparations for training?

What natural or cultural resources issues affect your field training operations? How does your unit address them?

Do units use drip pans when vehicles stop for extended periods in training areas?

Are all barrels in motor pools properly labeled?

Do units use overflow pans during refueling operations in the field?

Are soldiers aware of areas off-limits to training? Are these areas properly marked?

Do soldiers have environmental field cards? Are they aware of the contents of the card?

Do leaders have copies of the "Unit Leader's Handbook" or field cards on the environment?

Do they use them to prepare for field training?

Are environmental awareness briefings conducted prior to field training?

Do any environmental regulations preclude you from training to standard?

If so, how are we overcoming this training deficiency?

What is the condition of the training area? Is it supporting our training mission? If not, what areas need improvement and have we informed the installation Integrated Training Area Management (ITAM) coordinator?

How are environmental restrictions and rules in the training area disseminated to you so that you can inform subordinate units and plan training?

Do ITAM Environmental Awareness (EA) products effectively relay training-related environmental information to leaders and soldiers?

Have you had an opportunity to contribute to ITAM Land Rehabilitation and Maintenance

(LRAM) project development to improve the natural condition of the training? If so, how?

QUESTIONS TO ASK UNIT ENVIRONMENTAL COMPLIANCE OFFICERS (UECOS):

Are we in compliance?

How has compliance with environmental laws impacted our mission capability?

What natural resource issues do our units face, that relate to compliance with federal laws?

Do you receive adequate support from the installation natural resources management staff?

APPENDIX C: PREPARING FOR REGULATORY INSPECTIONS

Preparing for regulatory inspections should be a necessary part of your day-to-day routine, because regulators often give an installation little or no advance notice of an inspection.

RECORD KEEPING

Make sure that pertinent records and files are available and easily accessible to an inspection team. Records and files must be legible and ready for review.

Develop record and file indices and arrange contents chronologically. Copies of previous inspection reports also should be readily available.

Regulatory training and associated records usually are the first areas regulators check. Records need to be current and appropriate personnel trained (so these areas need emphasis and focus).

You should have a system that tracks and accounts for corrective actions for previous noncompliance, because regulators always go back and check previous violators and violations to determine progress or compliance.

Organize and maintain impeccable environmental records and files in all environmental areas, paying special attention to:

- hazardous waste management plans/SOPs
- spill plans/SOPs
- storm water management plans/SOPs/ BMPs implementation schedule
- waste analysis plan/SOP
- closure plans
- manifests
- weekly inspections
- training records and plans
- waste management contracts
- safety and security plans
- land disposal restriction forms
- permits and permit applications
- turn-in records (DRMO)
- integrated natural resource plans
- installation pest management plans

- integrated cultural resources plans
- state and local record-keeping requirements

IDENTIFYING HIGH PROBABILITY SCRUTINY AREAS

With implementation of the Federal Facility Compliance Act, state or federal regulators may inspect an installation annually. With the increasing number of fines levied against federal facilities for noncompliance, it is important to review environmental compliance evaluation checklists.

You should have checklists that identify potential major violations of all environmental regulations, including those on air, water, pollution prevention, and natural and cultural resources. These can be developed from Environmental Compliance Assessment System (ECAS) and Installation Status Report (ISR) Part II assessments and surveys, previous regulatory inspections, and your state and local priorities. If the installation properly addresses the issues on these checklists, and prepares its activities accordingly, it should pass inspections easily.

A SAMPLE RCRA CHECKLIST

1. Has the facility received a U.S. Environmental Protection Agency (EPA) Identification Number?

2. Has the generator determined that certain wastes are a hazardous waste?

3. Has the generator notified the EPA of their waste activities?

4. Are containers marked with the words “hazardous waste” or with other words that identify the contents of the containers?

5. Are containers holding the hazardous waste in good condition and safe to handle?

6. Are contents of the containers compatible with the container, i.e., acid in metal drum?

7. Are containers holding hazardous waste closed except when adding or removing waste?

8. Are containers handled in a manner to prevent damage, rupture, or leaks?

9. Are containers marked with the accumulation start date?

10. Is hazardous waste stored on site longer than 90 days? (Generator status only.)

11. Is generator accumulating more than 55 gallons of hazardous waste or one quart of acutely hazardous waste in containers at or near the point of generation?

12. Are manifests prepared for each shipment of hazardous waste sent off site for transportation, treatment, or storage?

13. Have facility personnel successfully completed required training?

14. Are container storage areas inspected at required intervals?

15. Are containers containing ignitable or reactive waste stored at least 15 meters (50 feet) from the facility's property line?

16. Has the owner or operator of the facility developed a means to control entry or access to the facility where waste is stored?

17. Is the facility operated in a manner to minimize the possibility of fire, explosion, or release of hazardous waste or other hazardous constituents?

18. Is adequate aisle space maintained to allow unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment?

19. Does the facility have an Emergency Preparedness and Contingency Plan?

20. Do personnel have immediate access to an internal alarm or emergency communications device?

21. Are records, including plans, made available within a reasonable time for inspection?

TARGETING AREAS OF POTENTIAL INTEREST TO REGULATORS

The annual Installation Status Report (ISR) Part II can help you target areas of potential interest to regulators.

The Environmental Compliance Assessment System (ECAS) identifies regulatory deficiencies

and corrective actions, offers potential remedies, and provides cost estimates for those remedies. Assessments are conducted annually and should be current.

Internal assessments are similar to inspections or audits and should prepare the installation for regulatory inspections. The environmental office should perform internal in-house staff assistance visits at least annually or provide such internal inspections on request. As part of ECAS, the installation should perform internal assessments that evaluate the performance of the operation in accordance with federal and state environmental regulatory requirements. Each internal assessment should produce a Installation Corrective Action Plan (ICAP), which lists corrective actions taken for any regulatory deficiencies at that site.

ADVANCE PREPARATION FOR REGULATORY VISITS

Establish environmental points-of-contact (POCs), down to the unit level, for all installation activities. These POCs should be trained to address adequately their activity's environmental compliance issues and they should develop good working relationships with the installation environmental office.

Establish a working relationship with DoD's Regional Environmental Offices (REOs). They can help installations and major commands keep abreast of, coordinate, and resolve environmental issues with state and federal regulatory agencies.

KEEP THE PEOPLE ON THE INSTALLATION AWARE AND UP-TO-DATE

The installation's Environmental Quality Control Committee (EQCC) should meet regularly and frequently (quarterly or at least semi-annually). Its meetings should be well attended.

Use installation communications to enhance the installation community's environmental awareness and ethic. Television, radio, newspapers, and other media can be used in addition to commander's policy letters or statements on environmental compliance, stewardship and quality of life.

Consider issuing an installation regulation that addresses all issues related to environmental programs, with specific emphasis on the installation's environmental uniqueness.

ORGANIZING FOR THE REGULATORY INSPECTION

Whether or not they announce the inspection, regulators have the legal right to conduct compliance inspections of DoD facilities. If time permits, distribute a regulatory inspection "notification letter," signed by the installation commander, that:

- Includes authorization from the commander for full cooperation and open response to the inspection team.
- Identifies who, what, when, where, and how.
- Is distributed as soon as practical before the regulatory inspection and includes pertinent activities both directly and indirectly involved with environmental operations (such as DEH/DPW, DRMO, DOL, Safety, Supply, PAO, IHPO, O&M, MWR, SJA, and Preventive Medicine).

- References potential impacts of the inspection (such as NOVs, fines and adverse publicity).
- Ask regulators to brief you or your designated representative upon entering the installation. Legal representatives (SJA) should attend.

During the in-brief, agreements will be reached on units and activities to be inspected.

Notify the units to be inspected as soon as possible, giving the time and entry location. Quick notification allows the appropriate POC to answer questions which, left unanswered, typically lead to findings of noncompliance.

Detail representatives from the environmental office to escort the regulators throughout the inspection. Choose escorts based on their knowledge of the activities being inspected and the relevant environmental regulations, as well as their communication and person-to-person skills. These escorts can help:

- Inspectors locate the activity to be inspected.
- Inspectors contact the activity's environmental POC.
- Obtain answers to inspector questions that are unanswered during the on-site facility inspection.
- Ensure that a positive posture of the installation is obtained through chronicling environmental success stories at the installation.

REGULATORY INSPECTION ADVICE

DO:

- Notify the chain-of-command that regulators are on-site.
- Insist upon an in-brief and an out-brief with the installation commander or a designated representative.
- Ensure that a member of the installation's supporting environmental office is present during every phase of the inspection. They can answer technical environmental questions or deal with issues that the activity POC is unsure of.
- Politely ask inspectors for their credentials and the purpose of the visit (especially if an inspector is from a division that performs criminal investigations).
- Establish the parameters of the inspection during an opening conference.
- Keep a log and a separate copy for the installation of all documents provided to inspectors.
- Take detailed notes during the inspection.
- Obtain a copy of any form the investigator uses.
- Request a copy of the inspector's report.
- Mark confidential documents as such and inform the inspector of their confidential nature.

- Ensure that all questions asked by regulators during an inspection are answered by the appointed POC or an alternate.
- Treat regulators in a courteous, professional manner throughout an inspection.
- Provide maximum assistance to regulators in obtaining documentation requested, such as training records, manifests, DD1348-1s, and Material Safety Data Sheets.
- Request assistance from regulators on technical issues and concerns; they are a source of specialized information and expertise that may help resolve environmental compliance concerns.
- Keep in mind that regulators have different interests and objectives.
- Conduct status meetings after each day to review findings and plan for the next day.
- Maintain open communication with regulatory agencies (establish a proactive relationship).

DO NOT:

- Lie, conceal, or destroy documents.
- Argue with regulators.
- Volunteer unnecessary or unsolicited information.
- Try to answer questions if you don't know the answer; tell the regulators that you don't now but will get the information for them.
- Try to hide areas of noncompliance.
- Point out areas of concern that may exist but are not addressed, questioned, or asked about.